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FEAR OF CRIME: A MULTIDIMENSIONAL APPROACH

by

M. Joyce Horton

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

DEPARTMENT OF SOCIOLOGY

EDMONTON, ALBERTA

SPRING, 1986

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled COPING WITH CRIME: A MULTIDIMENSIONAL APPROACH TO FEAR submitted by M. JOYCE HORTON in partial fulfilment of the requirements for the degree of MASTER OF ARTS.

Supervisor

Dated: December 12, 1985

ABSTRACT:

Because social programs are increasingly expensive, policy-makers turn to research for information upon which they can base their decisions. However, if the theoretical perspective which provides the structure for the research is inadequate or inappropriate, information that is critical to sound decision-making is not available. Further, without some knowledge of the potential limitations of the theoretical perspectives and the models used to test them, it is difficult to fully understand the findings that are reported or the conditions that are required if the results are to hold true.

The influence of theoretical models is examined in the context of a particularly challenging social problem -- the fear of crime. Several models which have been used to study this problem are outlined and the available findings are reported so we are not only able to learn about the models in action but also receive a consolidated report of current findings on the fear of crime. Further, we are able to form a taxonomy of the components or elements to be included in this research and to develop a comprehensive model for further research.

Social research requires the collection of many

kinds of data. Broadly speaking, knowledge may be classified along a continuum between objective and subjective information and this examination of the research models is organized according to their varying requirements for one kind of information or the other. Some of the kinds of information that are required by researchers include demographic, environmental, behavioral, experiential, and perceptual evidence and we shall see how these fit into the continuum suggested above. Depending on the type of study being conducted, the need for objective information may be satisfied via demographic data, specific information about the physical environment, behavior patterns, and experiential tallies. Sujective information regarding attitudes, emotions, perceptions of environment, and the like is also required. These types of information components provide the structure for most social research, although they may not be used simultaneously in any one research project.

The goal is twofold: to examine the research models or frameworks which have evolved out of the need for these types of information and to provide a full report on current findings of the fear of crime. The models are then tested on data drawn from the 1984 Edmonton Area Survey.

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I. INTRODUCTION:

A. Overview

B. Basic Outline of the Thesis

C. From Theoretical Concept to Research Model

D. Dealing With Fear, Concern and Perceived Risk

E. Information Requirements of the Research Models

F. Defining Crime

G. General Comments on the Fear of Crime

A. Overview:

As social programs become increasingly expensive, decision-makers turn to researchers for information because, as Baumer (1983) points out, social interventions involve a causal argument and our ability to design such programs is limited by our understanding of the problem. Therefore an important function of social science is the description and/or explanation of past events and the provision of a sense of understanding about their causes (Reynolds,1971). Put another way, "it is an ideal of science to give an organized account of the universe" (Rudner,1966; p.11) for in science, "we are always concerned with explanations, predictions, and tests" (Popper,1969; p.47). The elements of interest in social science are generally abstract, theoretical constructions according to Popper; if research findings are to be accurately understood in their proper context, it is important to know the process involved in the movement from abstract idea to specific observation.

Since theoretical perspectives and the models used to test them provide the structure for social research they profoundly affect the kinds of information collected and, hence, the findings that are available to provide the basis for policy judgments. In other words, a

point of view or perspective "limits what the observer sees by allowing only one side of what is 'out there' to be seen." (Charon,1985; p.3) Perspectives sensitize the researcher to some kinds of information while other kinds of information are ignored. For example, suppose that a researcher theorizes that there are things in the physical (structured) environment that may increase fear levels. The model could include such elements as poor lighting, little opportunity for surveillance, and run-down buildings. The hypotheses are implied: that people are more likely to be fearful when lighting is bad, when they can't see or be seen, or when the surroundings are dilapidated. Note that the model may leave out such things as foot traffic or loitering strangers because the researcher sees these to be social phenomena and therefore outside the frame of his theory. Since respondents in this study are unlikely to be questioned about their responses to loiterers or about other matters like personal experience, information about these sorts of influences will be ignored and the findings cannot portray the entire situation. Information that may be critical to sound decision-making is consequently unavailable. The problem is that decisions based on research using inappropriate or inadequate theoretical models waste both time and money.

Understanding of the power and influence of research theories and models can be best achieved by examining them as they have been applied in research projects done to date. This thesis, then, will investigate and compare those models used in the context of an especially challenging field: the effect of fear of crime on urban residents. Results obtained by using various perspectives will be outlined. Then the models will be concurrently tested so that they may be further compared and contrasted with each other. In this way, a reassessment of the research structures will link to current findings on the fear of crime.

B. Outline of the Thesis:

The goal of the thesis is twofold: to increase understanding of the role and the nature of some theoretical models used by social researchers and to give a consolidated report of current knowledge of the effects of fear of crime on urban residents.

Since basic knowledge of the terms and procedures involved in the transition from theorizing to field research is required, Chapter One contains a discussion of the relationships between "concept", "theory", "model", and other terms as they are to be used herein. Comments

on the issues surrounding the definition of fear itself will highlight some of the theoretical problems facing researchers. Notes on the kinds of information that are required by various models are included as are definitions of crime so that we may be clear as to what activities are the basis for fearful feelings. Chapter One concludes with general remarks on the fear of crime, the societal implications of this fear, and the role of the social scientist in solving the problem.

Since a thorough understanding of the various research perspectives is a necessary foundation for testing the models, Chapter Two will be devoted to a review and comparison of the theoretical and operational basis of each model as it has been applied to the fear of crime. Examples of the research findings of each approach are included along with an assessment of the kinds of variables and indicators used so this discourse will provide a complete review of the "state of the art". This analysis will also provide the basis for structuring a taxonomy of the factors that are pertinent to this substantive area.

The models will then be analyzed and compared by using data collected for the Edmonton Area Study in February and March of 1984. Conducted by the Population Research Laboratory at the University of Alberta, the

structured interviews include questions that may be used to test each of the models individually and in aggregate. Chapter Three outlines the operationalization of these tests, the sample design used in the Edmonton Area Study, and the statistical techniques to be employed. A report of the findings as they apply to each of the models is included in Chapter Four. A summary of the material, discussion of the practical implications and applications of the information, and recommendations for future research are included in the final chapter.

C. From Theoretical Concept to Research Model:

Generally speaking, scientific theory deals with the logical, thoughtful aspect of science while research deals with specific observations and measurements. However, "the need for deductive theories, when combined with the need for testable theories that are sufficiently complex to give really new insights, poses a major dilemna for the theory builder" (Blalock,1964; p.3). Specifically, a theory which is refined from general (ambiguous) concepts to particular elements may lose the complexity, the very inspiration which makes the work unique. Further, theorists tend to emphasize theoretical definitions while methodologists may be concerned

primarily with operational definitions (Hage,1972) and critical steps in the research procedure may not always intermesh. Additional confusion occurs in the statement that theory must be grounded in empirical data (Blalock,1964) without explaining how that empirical data can be effectively collected if the initial research is not theory driven in the first place. Clearly there are many problems in social research and knowledge of the processes, definitions and methodological issues which link theory to measurement is a basic requirement not only for understanding the models to be examined next chapter but for accurate interpretation of research findings.

The word "theory" comes from the Greek term meaning "view" or "speculation". A general theory, then, is a conjectural view, a tentative judgment based on incomplete or merely probable evidence. It begins as a concept or series of concepts, mental images, or generalized ideas which are the atoms of the theory. These "atoms", are then linked by theoretical statements (Hage,1972). Hypotheses are implied by the suggestion that some relationship or other may exist but, at this stage, they lack precise definition. These hypotheses are provisional in the sense that they have ultimately to be replaced by clear, testable statements. Remember, however, that "Testing the more abstract or general

theories requires that the small number of abstract variables contained in these theories be linked in very explicit ways to measured variables" (Blalock,1964; p.4).

It is not enough to leave a theory as merely a concept, a set of untested ideas: the idea is to use the theory as the foundation for actual empirical examination. Achinstein (1968) explains:

> Normally when one speaks of a theory, what is being referred to is a set containing at least central and/or distinctive assumptions. By ASSUMPTIONS I mean those propositions of the theory that are not treated as being derived from other than the theory (p.121).

In practice then, a theory is a perspective, a way of describing relationships between elements in the proposed system. It includes judgments of the relative and/or proportional importance of certain elements of interest. Hence, a social theory is a "systematically related set of statements, including some lawlike generalizations, that is empirically testable." (Rudner,1966; p. 10) In other words, if a theory is to be useful, it must be specific enough that it can be disproved (Stinchcombe,1968) but universal enough that results can be generalized beyond the study sample and conditions.

Given the limitations of the initial perspective, the social researcher must move from vague concepts to more specific descriptions - or models -- of the

relationships that have been proposed. A model, as the term is used herein, is an interpretation of some set of general relationships as outlined by the theory. In other words, the theory provides the basic idea in a form that identifies general patterns between elements in a social system but the model specifies these relationships more clearly. Hence, the model also provides the structure for the actual research in that particular elements are defined and indicators of the condition or the existence (or non-existence) of those components are identified. Remember that models are still conceptual frameworks and are distinct from the drawings and mathematical equations which are frequently used in attempts to illustrate and communicate their structure (Achinstein,1968). A theoretical model specifically describes the systematic relationships that are thought to exist and, though it may be a somewhat simplified approximation of these relationships, it provides a "bench mark" against which observations can be measured. In other words, while a THEORY suggests that it is plausible to believe that X is governed by certain principles, the MODEL is considered to be one useful (testable) way of representing the theorized situation. The value of a model must be judged by two criteria: how well it serves the research purpose and the accuracy of the representation (Achinstein,1968).

It follows then, that the point of the model is to show what an object or system could be like if it were to meet certain specified conditions.

The model highlights the elements of interest and specifies the variables that are to be examined. A variable is a characteristic, an attribute or grouping of attributes, that has a range of values for different members of the sample population. A variable can be measured using one or more indicators and its validity as a representation of the theoretical concepts can be judged on a qualitative as well as a quantitative basis. Using the illustration above, for example, lighting level might be measured by a number of indicators: on site foot-candle measures, respondent's personal views of the adequacy of available light, and so on. An indicator, in other words, represents the condition or values of a general concept by using respondent's reports or other measuring devices.

Ideally, variables should be chosen because they are linked to the theory and not merely because they are easily measured or are included in some available data set. Stretching the epistemic link may lead to accusations of 'data-dredging' wherein the theory grows out of the research findings rather than findings being based on theory.

As noted above, an important function of

scientific investigation is the provision of an ORGANIZED picture of the way things fit together (Rudner,1966). Hence one important strategy in the move from conceptualization to observation is the construction of typologies and taxonomies. These classification systems permit specification of criteria for membership in one category or another and allow formation of generalizations which take the relationships between categories into consideration. A definitive classification system begins with the most inclusive category and develops further classes from criteria that is increasingly selective. Typologies, as the label indicates, are aggregates of types and as such may represent a general ideal rather than finely defined categories. Taxonomies are more detailed, and are adapted from the biological application which provides a systematic and specialized arrangement of plants and animals. Though it is not strictly correct to do so, the terms are often used interchangeably to describe any organized or systemati categorization of the elements of research interest.

The construction of a typology or taxonomy is not merely a sorting process.

> Unless data are organized with a view to revealing explanatory connections between classes of events, there is no point in talking about the completeness and precision of the system. ... Problems and their answers are so closely linked

> to the categories and nomenclature adopted by the investigator that all these elements develop concurrently. ... Any criterion will organize data .. but only some systems of classification will be scientifically useful. (Brown,1963; p.171)

Nettler suggests specific criteria for judging the value of a systematic classification:

> Two good criteria of a 'good taxonomy' are ordinarily used - 'internal' and 'external'. The favored 'internal' criterion is stability. Stability is resistance to distortion by the addition of new information ..... 'external' criterion is a test of the taxonomist's purpose. It may include predictions that members of the final sets will differ on as yet untested behaviors. ... Thus constructed, a taxonomic rule is definitive, but it does more than tell what words mean. It states the highly probable associated properties of kinds of objects, people, or events. It builds anticipations and allows for an order of prediction, but it need make no causal claim although it may be useful to such assignment. (Nettler,1970; p.114)

Clearly, developing a taxonomy will clarify the model which represents the theoretical statements and the stated hypotheses.

Moving from a vague concept of how "things might work" to a fully operationalized research project is a complicated process. As ideas become more finely tuned, original concepts may be revised, taxonomies restructured, and hypotheses rephrased until the package presents a cohesive and logical structure, ready for measurement and testing. Frequently, further modification of the

theoretical structure becomes clear and the process begins anew. An example of the difficulties that are intrinsic to the process is outlined in the following discussion about the operationalization of fear and concern.

D. Dealing With Fear, Concern and Perceived Risk:

Fear is a most basic emotion that has both a physiological and a psychological state. Though the physiological manifestations of fear - rapid heartbeat, high blood pressure, and the like - are measurable, they are virtually impossible to use in a sociological study (Skogan & Maxfield,1981). However, the psychological aspects can be expressed or behaviorally displayed, and therefore they can be measured.

Costello (1982) suggests that there are three components (dimensions) of fear: affective, somatic, and avoidance. The affective component refers to do with the severity or intensity of the emotion. Avoidance is basically a dichotomous behavioral measure: either one avoids what one is fearful of -- or not. The somatic component is the physical manifestations noted above. Liang, et.al. (1983) propose slightly different dimensions suggesting an affective component which consists of feelings of safety, a behavioral component which can be

indexed by the extent to which activities are limited due to concern for crime, and a cognitive component which includes perceptions of crime rates, risk, and so on.

It might be argued that these conceptions of fear may not accurately represent reality. For instance, the behavioral component may be particularly deceptive since one might be very fearful without necessarily avoiding the object of the fear or without any obvious outward display of the intensity of the feeling. Therefore, it might be argued that the affective component, as it represents intensity of feeling, may be the key to understanding and defining fear. For instance, Furstenburg (1971) noted that it is important to distinguish "fear of crime" from "concern about crime". The point is important, for one can imagine that as concern develops into anxiety and worry, to fear, and finally to terror, that a continuum of more and more intense feelings is constructed. Since the intensity of the feeling changes, it is necessary to have a theoretical and operational definition that measures this change.

Even though there is no agreement about specific dimensions, it is quite clear that fear is a multidimensional construct that has emotional, cognitive and behavioral expressions. Put another way, diverse measures of fear will provide a more comprehensive test of

fear. Unless all aspects of fear are adequately measured, the research is incomplete. Therefore, operationalization of fear must be approached with caution for as Miethe and Lee (1984) say, "the use of any single indicator of fear is not likely to reflect the full spectrum of anxieties about crime" (p.398). Even measuring fear in terms of several components may be unrealistic if the components themselves are also seen to be unidimensional (Liang, et.al,1983). In other words, the researcher must remember that each component or element of fear has many measures. A further caution must be included: if the nature of fear changes depending on its source, creating indices to measure fear may distort the findings. For instance, items that tap anxiety about personal crimes should not be combined in the same index with those attending to fear of property crime. Similarly, an index may mask some very important distinctions between fear and feelings of vulnerablity or between fear and perceived risk (Miethe and Lee,1984). In sum, a taxonomy of fear can be structured from these dimensions and the researcher must be very clear of the proper place for each component and for each indicator within the structure.

Operationalization of fear is as problematic as its definition. As Clarke & Lewis (1982; p.51) explain Furstenburg's (1971) discourse, "fear of crime can be

measured by a person's perception of his own chances of victimization" (p.51). Hence, a cognitive dimension of fear has been added to the list. Fear is seen to be "based on the individual's perception of safety in the neighbourhood". Giles-Sims (1984) notes that the most common approaches to fear in recent work are to address (a) the general perceptions of risk (crime-specific); (b) perceptions of local crime rates; and (c) perception of risk within the neighbourhood, all in some attempt to measure fear levels.

General perception of risk is often not so general: fear about being the victim of a particular crime is more likely the case. The "crime-specific" approach has as its basic tenet the idea that different crimes should link with different degrees or intensities of fear. The implications of this conceptualization of fear should not be ignored. Warr and Stafford (1983) point out that if fear is tied to the seriousness of a crime then fear is immutable: unless residents of a community can be persuaded that a crime and its consequences aren't serious, then there is no way to reduce fear. With this caution, the same authors do imply that some equation containing measures of perceived risk and perceived seriousness of a crime should be used. For instance, the actual risk of being a murder victim is very low but the

consequences are fear-provoking to say the least! Risk of a purse-snatching may be high, but the consequences are more inconvenient than irreparable.

Measuring fear in terms of perceived chances of victimization (perceived risk) based on perceptions of local crime rates may really measure only some cognitive perception of the environment. This intellectual assessment would not catch the emotional impact of "fear". In this case, "perceived risk" might be a better measure for "concern". In other words, perceived risk and fear are quite distinct (Warr & Stafford,1983).

Researchers must find a way to inject some intensity into the indicator without creating the conundrum of linking fear with the seriousness of specific crimes. One attempt to do this is to measure feelings of safety while out alone in the neighbourhood. The use of this indicator is based in the idea that by bringing "risk" close to home some sort of emotional factor has been incorporated. Emotion plus intellectually assessed risk equals fear, in this line of thought.

In another attempt to incorporate some emotional impact "perceived risk" becomes "perceived threat" for some researchers. It is a logical move for "risk" is merely the chance of encountering harm, and as Lee (1982) points out, "risk" remains whether or not a person

ventures outside the home. It is an intellectual assessment. "Threat", however, means an actual indication of impending danger, imminent victimization! Therefore, it is reasonable to believe that the emotional levels are quite different between the two concepts. This distinction is as important as that required between "fear" and "concern" for without it we have no way of knowing whether we have measured "fear" or whether we have measured "concern". However, all too often it appears that to the respondents (and to too many researchers) the term "risk" is interchangeable with "threat".

"Concern" is as difficult to operationalize as "fear"! As Clarke & Lewis (1982) interpret Furstenburg, "concern is based on the individual's estimation of the seriousness of criminal activity in his locality or society .... related to resentment of changing social conditions" (p.51) Clearly "concern" is much more likely to be the result of a cognitive perception rather than an emotional reaction to factors in the environment.

One fundamental difficulty in operationalizing both "fear" and "concern" is the seeming contradiction between objective and subjective indicators. For instance, there may be no logical association between official crime rates and individual perceptions. Nor may these perceptions be reflected by behavioral changes.

Some researchers tend to favor objective indicators since they are easily replicated and applied to other contexts, but there may be exceptions. Observed behaviors which might be defined as objective indicators of fear might include the installation of locks and window grills. It is conceivable that even this seemingly straight-forward measurement may not be an accurate indicator of either fear or concern for well-to-do families can easily afford to install security systems and are likely to do so at a much lower anxiety level than can those who are less affluent. In other words, the meaning of an objective indicator as it applies to one person may not be equivalent to the meaning of the same indicator as applied to another.

Further, measurement of a subjective concept like fear with objective indicators may make little sense indeed. This implies that if "concern" is a relatively objective, intellectual assessment of the seriousness of crime problems in the community, it might be measured by indicators that are relatively intellectual and objective in nature. "Fear", however, is affective -- it has various intensities and it is largely subjective in nature. Therefore, subjective indicators might best be used to measure it.

Indicators also seem to address many levels along

the continuum of "intensity of feeling" and it is difficult indeed to tell just where each lies on the scale. One example of the problems this 'overlap' can cause researchers is seen in a study done by Kennedy and Silverman (1985). Their basic tenet is that fear of crime may really be fear of the unknown or unfamiliar so that perception of social diversity in terms of age, marital status, and the like in one's own neighbourhood should be associated with higher levels of fear. However one might also argue that perceived social diversity is also related to "changing social conditions" as neighbourhoods evolve over time. Therefore it is entirely possible that the measures used in this study address Furstenburg's "concern" with greater validity than they address "fear" and this may explain why the authors found that the associations were weaker than they expected.

The issues and concerns surrounding theoretical and methodological problems are not limited to the study of the fear of crime. Examiners of human behavior are always faced with the problem of trying to create precise definitions of imprecise emotions, behaviors, and perceptions. One attempt to solve the conundrum is the use of the theoretical models which structure the search for the necessary information.

E. Information Requirements of the Models:

It is implied above that there are two basic types of information: objective and subjective. Objective information is "factual" and independent from personal feelings, opinions, and the like. Subjective information, on the other hand, is founded in perceptions, emotions, and attitudes. Though it seems that these are two entirely separate types of information, in reality a continuum of sorts can be constructed between them. For instance, so-called objective information can be more or less objective. A study using information about the frequency of certain crimes may appear to be objective because it is using official records that could be similarly interpreted by other researchers. But the initial classifications may lack total objectivity because the records have been created by coders who may have varied levels of competence and concern for accuracy. This is only one of many reasons why all data should be considered suspect.

Subjective information, because of the influence of emotions, prejudices, and the like, tends to be very flexible and changeable. This makes it very difficult to replicate for, though general trends might be identified, even minor events might change the answers given even over

relatively short time periods. However, as we shall see below, it is subjective information which gives meaning to research data. Without it, we may know who is afraid but we will not know why they are fearful.

Depending on personal preferences, interests and theoretical orientation, social scientists tend to place emphasis on one or the other type of information. Some collect data that is more objective than subjective, while others concentrate on subjective material, using objective categories merely as identifying classifications. Hence, various study models reflect these preferences. Although research models might be classified by various other criteria, the discussion of models which is to follow will explore this varying need for objective or for subjective information.

The most objective model examined herein developed from the ecological perspective. Termed here as the Structural Model, it uses demographic indicators such as age, gender, ethnic and/or racial background, marital status, income, employment status, and education.

Some models require both subjective and objective indicators. For example, objective data about the physical environment may be collected, but Environmental Model studies usually add subjective information in the form of human perceptions of the physical environment.

Behavioral research similarly combines objective and subjective material. For example, occurrences of certain behaviors can be tallied but satisfaction with social interactions and the like is clearly a subjective measure. The Social Psychological Models particularly emphasize subjective material, using objective demographic data merely to identify WHO they are talking about. While experiences (such as victimization) can be counted, these models concentrate on feelings, attitudes, opinions, perceptions and other emotional and cognitive factors.

All of these models can therefore be placed along the objective - subjective continuum. Individually and as a group they require a variety of kinds of information including demographic, environmental, behavioral, experiential, and perceptual material.

Defining the kinds of information that are required for comprehensive research is as integral to the research process as is the initial outline of the hypotheses or the structuring of the taxonomy. In fact, one of the seemingly endless tasks of the social researcher is that of defining and clarifying the concepts and terms that are central to the research project.

F. Defining Crime:

It is important to have a definition of crime itself so that it is quite clear what it is we expect to be a source of fear or concern. Many activities are illegal, of course, but the general public either cannot take self-protective steps or does not bother to do so. The laws against use of some drugs, for instance, are frequently ignored. The kinds of crime that are of interest here are those that could induce the taking of some protective strategies because the subject sees him/herself as a potential victim. Amongst such crimes are those which involve contact (though not necessarily confrontation) between offender and victim; which usually occur outside the home, the homes of friends, and outside the workplace. Rape is such a crime for many women take precautions in an attempt to avoid victimization. Property crimes are also of interest here. It is quite conceivable that some people may stay at home because they are afraid to leave their property untended; they may install special locks, window grills, and alarms; or they may move in order to avoid victimization.

For an incident to be labeled as a crime, it must have three elements: proscribed action as defined under the law; intention (not accidental or the product of a

deranged mind); and prescribed punishment, again as defined under the law (Walsh and Poole,1983). Therefore: crime is an act or omission in violation of public laws, the committing of which was willful and intentional, and for which prosecution and punishment is prescribed by the state. Finally, "An intentional violation of the criminal law, committed without defense or excuse and penalized by the state." (Nettler, p.33,1978 quoting Tappan,1947). These definitions suggest a broad spectrum of potential activity and this must be further narrowed for our purposes.

The personal crimes which are of particular interest are generally defined by Walsh and Poole (1983) as follows:

> Murder - "Unlawfully , and with malice aforethought, causing the death of a human being."
>
> Aggravated assault, assault, and attempted assault - any violent attack and/or attempt to injure, differing only in the intensity of the attack and seriousness of resulting injury;
>
> Rape, attempted rape, and indecent assault either upon a male or female - the act of forcing or attempting to force a non-consenting person to have sexual intercourse, forcible and unlawful carnal knowledge against the person's will;
>
> Robbery and attempted robbery - taking away property by force or by intimidation;
>
> Theft and attempted theft - the dishonest appropriation of property belonging to another, but without the use of violence. Includes embezzlement, fraud, and so on but for the purpose of this discussion is considered as, for example, snatch thefts,

pickpocketing, etc.

The property crimes of interest would include:

> Burglary - breaking and entering of a dwelling or any building as a trespasser with the intent to commit a crime therein; Aggravated burglary occurs when a weapon is carried.
>
> Theft - the removal of personal and household goods, to take from another without right or authority, including car theft;
>
> Vandalism - the wilful destruction of property.

The crimes are broken into two categories -- personal crimes and property crimes because there is reason to believe that, as a result of differences in the repair and recovery processes, crimes against the person are more fear-provoking than crimes against property.

G. Fear of Crime:

Fear of crime is a problem that is particularly troublesome to urban dwellers according to Skogan and Maxfield (1981). They note that while only 30% of the residents in small towns report being fearful to walk alone at night, fully 60% of residents of large cities express this fear. Their figures are for American cities, of course, but there is little evidence that the situation is much different in Canada. Research of this sort may be particularly pertinent to the City of Edmonton, for Krahn and Kennedy (1985) report finding that although the city

ranks fourth for property crime rates and fifth for violent crime rates, Edmonton residents expressed the highest fear levels of the 23 Canadian cities they studied. City of Edmonton residents are also reportedly the third most likely to take measures to protect their property, second most likely to employ measures for personal protection.

Some degree of fear/concern is adaptive, of course, for it may result in the use of sensible precautions. However, much of the fear felt by urban residents may be paralyzing --- causing many lost opportunities for those who feel they must isolate themselves as a coping strategy. Two groups, women and the elderly, are particularly likely to use restrictive precautionary strategies, according to research to date. Both groups also express disproportionately high levels of fear despite lower rates of victimization than men or the young. Between them, these groups are a major segment of the population so if they are indeed unusually fearful and self-restrictive behavior is widespread the potential effects should not be underestimated. Business loses sales, expensive public facilities may be underused, and opportunities are lost throughout both the social and the economic fabric of the country. No wonder a frequent comment is that the fear of crime may be a larger problem

than crime itself!

It is important to remember that science is oriented to the study of how things ARE, not how they should be (Babbie,1983). In other words, debates on value or morality or the like cannot be settled by the scientist. However the scientist is particularly trained to provide an organized account of what IS although Brodbeck cautions that what counts as telling WHAT and what counts as telling WHY (Brodbeck,1968) must be precisely defined. Given the limitations imposed by careful research procedures, it matters little whether the theory is based in empirical data or in reasoned concepts or observations as long as the work is thorough and the results are reported in the proper context. The social scientist must formulate the best theoretical and operational foundation that is possible in the light of existing evidence. Though we might wonder at the infinite variety displayed in human beings, they are also creatures of habit. As Babbie (1983) puts it: "All science is based on the assumption that regularity exists in what is to be studied, and we have noted that regularities exist in social life" (p.18). Perhaps Lazarsfeld sums it best when he says that the major task of the scientist include: "parsimonious organization of knowledge through systematic

theory, and development of empirical methods to gauge how much regularity there is in the social world, to find the conditions under which these myriad proverbs, apercus, and visions, are true" (Lazarsfeld,1959; p.39).

In Chapter Two we will see how researchers have indeed tried to organize and present knowledge about the fear of crime.

II. THE MODELS AT WORK:

A. Overview of Current Literature

B. Review of Specific Models

Structural Model
Environmental Model

Routine Lifestyle Model
Social Support Model

Social Psychological Concepts
Victimization Model
Cognitive Model

C. The Taxonomic Structure

D. Comparing the Models

E. The Comprehensive Model

A. Overview of Current Literature:

Social research done in recent years shows that human beings have varied responses to crime, to criminals, and to the potential for personal victimization. These reactions fluctuate between individuals and they change as an individual faces different conditions, different crimes, and different consequences (Skogan and Maxfield,1981). Responses also vary in seemingly consistent ways between groups: women react differently from men (Bowker,1979; Braithwaite & Whitrod,1982; Costello,1982; Kennedy & Silverman,1984; Lampe,1982; Lee,1982; Riger, et.al., 1978,1981,1982; and Widom & Maxfield,1984); the elderly react differently from the young (Clarke & Lewis,1982; Clarke, et.al., 1985; Eve & Eve,1984; Giles-Sims,1984; Jeffords,1983; Kennedy & Silverman,1985; Lee,1982; Normoyle & Lavrakas,1984; Norton & Courlander,1982; Silverman & Kennedy,1983; and Yin,1982); and there are variations in response between racial or ethnic groups as well (Grandell DeAldaz,1982; Roberts, et.al., unpublished; and Wiltz,1982). There is also a sizeable body of literature available describing the impact of crime on urban dwellers in more general terms (Hartnagel,1979; Heller, et.al., 1983; Kaminski, et.al., 1983; Kennedy,1978; Kennedy & Krahn,1984;

Kennedy,1985; Krahn & Kennedy,1985; Lavrakas,1982; Lavrakas, et.al., 1984; Liska, et.al., 1982; Morgan,1983; Newman & Franck,1982; Perloff,1983; Ruback, et.al., 1984; Sacco & Silverman,1981; Sacco,1982; Schaefer & Nicholls,1983; Siegel,1983; Smith & Donnermeyer, unpublished; Smith,1982,1983; Stafford & Galle,1984; Stevens,1984; Toseland,1982; Troyer & Wright,1985; Wakshlag, et.al., 1983; Warr,1980; Warr & Stafford,1983; and Weidemann & Anderson,1982). Data has been collected largely in North American cities with some work done in Europe, Australia and South America.

In total, this body of work makes some important contributions. Although this listing implies that these studies have concentrated on demographic indicators such as gender and/or age, researchers have collected many kinds of information and have used several theoretical perspectives. Each of these approaches will be examined in greater detail below.

B. Review of Specific Models:

We have already noted that researchers using theoretical perspectives that require varied degrees of objective and/or subjective information, have developed

several models. The continuum between these two types of information provides the structure for this discussion, beginning with the Structural Model which is the most objective of those to be examined and ending with models that are more subjective in nature. The kinds of material which is of importance to each individual perspective: demographic, environmental, behavioral, experiential, and perceptual, will provide further structure to the discussion.

The Structural Model utilizes demographic information but not psychological material. The Environmental Model emphasizes physical design factors and human responses to the physical environment. Similarly, the Behavioral Models combine information types as they enumerate activities and social contacts as well as attitudes and satisfaction with these contacts. Though more emphasis is placed on emotional factors, the Victimization Model also tallies specific kinds of experience. Hence, these 'combination' models are categorized and ordered on the basis of their emphasis on the two basic types of information. The completion of this discourse occurs via examination of the more subjective perspectives emphasized in the Social Psychological Models.

Because of the limits of the underlying

theoretical perspective, each of these models tends to ignore important variables. For instance, they have varying degrees of interest in the individual and social relationships. A truly holistic approach would bring the perspectives together, giving us a "multiple definition triangulation" (Hage,1972) which should enable us to focus, like navigators using the stars, even more clearly on the basic dependent concept "fear of crime". In other words, by examining all of the kinds of information which has been collected the total picture should emerge and its parts can be judged in the context of their contribution to the whole story. Hence, as we develop the taxonomy of the fear of crime, we will also develop a comprehensive model for future research.

Structural Model

Social Rank/Economic Status
Urbanization/Family Status
Segregation/Ethnic Status
Modifying the Model

The Structural Model is an ecological perspective, the foundations of which lie in the idea that human societies have two levels of organization: biological and social (Poplin,1979). Hawley (1950) points out that the theoretical foundations are also rooted in geography and some examples of this application of the

perspecive are the Burgess concentric zone model of urban growth and the other urban growth models which were developed in Chicago in the 1920´s and, more recently, the work in both areal and ecological analyses wherein areal analysis is concerned with the distribution of offenses and offenders and ecological work examines relationships between crime rates and environmental measures (Herbert and Smith,1979). Just as there were identifiable physical growth patterns, sociologists like Robert Ezra Park and Roderick D. McKenzie, contemporaries of Burgess, noted that certain social phenomena or social characteristics tended to develop in similarly consistent patterns.

The basic tenet of the ecological perspective is that there are limited resources within a given territory and the social structure is built upon this framework via the ability of various groups to compete for these resources, for better locations and higher quality environments. Social and environmental factors are linked as Kennedy (1983) sums it: "Ecological distribution is the spatial distribution of human beings and human activities resulting from the interplay of social and economic forces" (p.61).

There are a number of problems with this approach to human studies. For instance, it is difficult to isolate the concept of "competition" to determine if that

is indeed the explanatory variable. Put another way, the ecological perspective does not easily provide hypotheses for empirical testing (Kennedy,1983). Another problem exists in defining exactly the point where biotically organized entities become social in nature (Poplin,1979). Consider the effect of gender on income, for example. Further, just as the physical growth patterns noted by the geographers could not be consistently found in every city, nor could consistent social patterns be traced through several communities.

Even the modifications of more recent theorists like Quinn (1940) and Hawley (1944,1950) have not changed the fact that human ecologists are not interested in looking at the individual but concentrate their efforts on the aggregate population. This emphasis on the 'big picture' processes at the expense of attention to the individual is a major criticism of the model. Bell (1982) cautions "The use of aggregate measures always presents the potential problem of committing the ecological fallacy" (p.94). This occurs when aggregated measures are used to represent individuals. For instance, the model may imply support for a stereotype: it is possible that findings will show that crime rates increase in neighbourhoods peopled by those who are non-Caucasian, from broken families, and of low social and economic rank.

Care must be taken not to label Joey Cardinal, raised by grandparents and currently unemployed as a potential criminal on the basis of Structural Model findings. Put neatly, not all the people living in a "high-crime area" are criminals (Kennedy,1983).

The Structural Model has no room for subjective data (excepting for the coding variations, etc. which were discussed above). While it may be used to describe an association of crime rates in a series of census tracts with area average incomes, divorce rates, or ethnicity, for instance, it cannot tell us much about the fear of crime or about the effect of living in a high crime area. This is related, of course, to the use of aggregate data as discussed above, and it means that the structural model can describe associations and perhaps point the way to more detailed investigation of some particular group but it should not be used to explain social phenomena.

Michelson (1975) points out a tendency to ignore the environment except as a background medium. This is a contradiction of the biotic foundations of the perspective. It results in measures done on the basis of census tracts, maps, and the like and not on the basis of actual socially coherent neighbourhoods. On the other hand, an over-dependence on the idea that urban settlements develop according to some natural order

ignores the impact of urban design and planning policies (Kennedy,1983).

Even given these criticisms, the structural (ecological) perspective is a popular model because objective information is available via census data, municipal records and the like and it can be replicated with ease.

In one example of a structural study, Bell (1982) used the model to describe the association of personal crime rates and juvenile delinquency rates with various social factors found in a number of different urban subareas. This version of the model is basically an elaboration of the Shevky-Bell (1955) social area typology which used three indexes: social rank (economic status), urbanization (family status), and segregation (ethnic status) to describe and measure social differentiation. These three concepts are a reflection of Park's original assessment of the factors most central to the ability to compete successfully (Kennedy,1983) for resources and locations. However the research emphasis has changed from an interest in the processes of competition for improved physical environments to an interest in linking some social phenomena with various groups.

Note that the dependent variable is the number of criminal incidents as reported to the police and recorded

as part of the official crime rate rather than fear/concern. The definition of (a) crime in structural model research matches the definition used under the law and formally investigated by a legitimate law enforcement agency. This model makes no attempt to gather victimization rates, for instance, which include crimes that have occurred but have gone unreported.

Bell operationalized the three basic concepts of the Structural Model as follows:

Social Rank/Economic Status:

The variables included in this index of social rank are years of schooling completed, percentage of adult males unemployed, mean housing value, and median family income. One can see that these indicators do indeed address the basic tenet - competition -- for they all address some facet of income, the key to being able to attain an improved environment. Note that these measures are taken as aggregates over the population residing in some specific area such as a census tract. They are not the same as the individual measures: education, employment status, tenure (own/rent) status or personal family income.

Urbanization/Family Status:

The variables included in Bell's index of familism include the percentage of female-headed families, percentage of females in the labor force, and percentage of husband-wife families. Again note the effect on income that is implied in each of these variables: with female wages generally well below male wages, a female-headed family is not able to compete successfully with husband-wife families, especially if the latter has two incomes. Note also that, once again, these are aggregate measures rather than measures of individual marital or family status.

Segregation/Ethnic Status:

This index is constructed via the ethnic and/or racial percentages shown for the area of the study.

Although he has used variables which address the classical concept of competition, Bell has relegated the concept to the background. He simply describes the association of crime rates with the factors included in his version of the model. He is not alone in this approach and one must ask whether it is useful to apply the model in this way. This method may describe apparent

links but it cannot explain 'real world' effects on the lives of the people.

It is important to use caution when analyzing the findings of a structural model study. The potential for interaction between the concepts and between the variables which comprise their indices is a serious problem. For instance, various ethnic or racial groups are disadvantaged in their potential opportunity in the North American work force. Consider the effect on "social rank" of the different educational and income opportunities that are likely to exist for a Japanese Canadian verses a native Canadian Indian, for example. Some ethnic and racial groups have certain religious associations which may forbid divorce so segregation may interact with family status, as well.

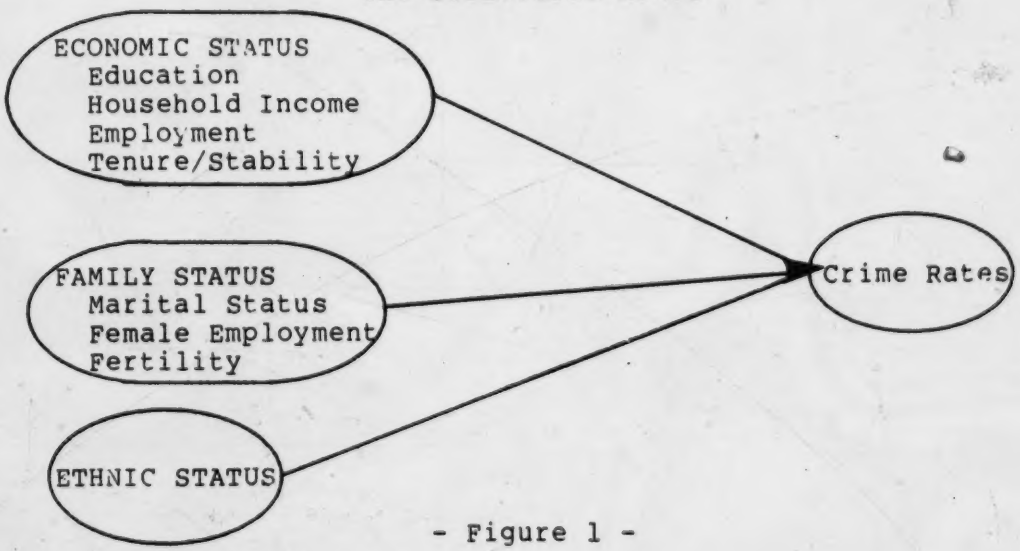
Given these further cautions, the Structural Model does offer some tantalizing possibilities. An example of this potential contribution is suggested by Bowker (1979). He notes that there are considerable differences in victimization rates between cities. A further anomaly occurs in that the women in some cities are victimized more frequently than men in other cities -- a contradiction of the common finding that women are less likely than men to be victims of crime. Bowker suggests that it is possible that there are differences in

the characteristics between the cities that may play some causal role in the differing levels of victimization. Although Bowker reports no particular support for his proposal the idea that a structural model might be helpful is intriguing indeed.

Modifying the Model:

An illustration of Bell's version of the Structural Model applied under the Social Area Analysis format is found in Figure 1. Remember that in the original application of this perspective each concept is applied to geographical areas rather than to individuals.

The Structural Model



- Figure 1 -

Note that the three components appear as separate entities. Under the terms of the model they are considered to be separate concepts which may individually or additively contribute to the ability to compete for some urban advantage.

Although the classical Structural Model emphasizes aggregate measures, many researchers modify the approach. The Toseland (1982) study is an example. Toseland studies fear of crime as it is associated with several demographic variables along with psychosocial variables and victimization experience.

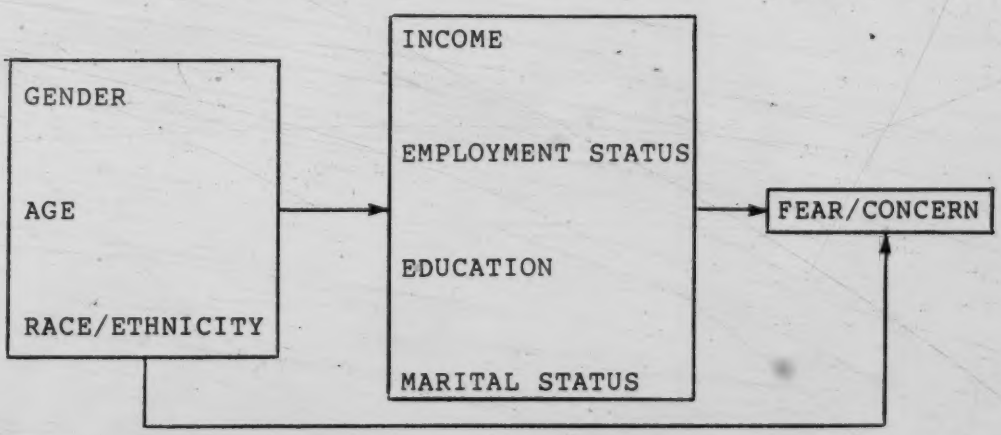
Toseland's use of individual demographic indicators to sort respondents into various groups: by age, gender, and employment status, etc. is one way of 'individualizing' data so that it is made relevant and applicable to the specific sample which has been drawn for study. An adaptation of the ecological perspective is used to associate the social phenomena with these demographic groups. Instead of crime rates being high in Census Tracts B and E where male unemployment is also high, crime is associated directly with male unemployment. This distinction is important. Though one must remember that even with the modified approach these associations are not explanatory, a study like this does provide important descriptive clues for which groups should

receive particular research attention.

Note that the concepts shown for the original theoretical approach have been broken down into individual characteristics. These variables are equivalent to the major variables used in the classic model so the foundational basis has not been entirely ignored. Further, interest in objective demographic information remains central.

Note however, that we are no longer working with a theoretical construct but with a set of objective variables or indicators that will provide the foundation for a taxonomic structure of the indicators of fear of crime. An illustration of this taxonomy is shown in Figure 2.

The Demographic Taxonomy of Fear of Crime



- Figure 2 -

By realigning the variables which make up the underlying concepts of the Structural Model, we can make the objective information more adaptable and useful to our research problem. Consider, for a moment, the variables that are in effect at the time of birth: Gender, Age as one becomes a member of a cohort, and Race/Ethnicity. These variables, incidently, are those most frequently associated with fear of crime, according to literature reviewed to date. Only later in life do the economic and family status variables take effect: education, income and employment status, marital status. By a similar coincidence, these variables are often found to mediate fear levels so they are set up as intervening variables between the basic 'birth package' demographic variables and the fear of crime. The resultant taxonomy provides a concrete foundation for the examination of the other major models.

Environmental Model

Defensible Space Model
Opportunity Model
Perception of the Environment
Illustrating the Model

Though the Structural Model acknowledges the impact of the environment in its basic theoretical foundation, in actual practice the environment is seen

only as a background medium without any specific influence on behavior (Michelson,1975). The Environmental Model, however, emphasizes those factors in the physical environment, particularly in building and neighbourhood design, that appear to affect the behavior of the residents. It is posited that these design factors mold behavior by providing opportunity for certain behaviors to occur or by mediating against them. This is the basic tenet of environmental determinism and it is a view held with some justification for the climate and resources of an area dictate the clothes worn, the crops grown, construction techniques and materials, and recreation behaviors. One can see how this base might be extrapolated to building and urban design and, in fact, this is the perspective with which many architects and urban planners are trained. Over-zealously applied, it results in plans for "model cities" designed to solve all the ills of society by molding the behavior of the residents through "improvements" or "corrections" in the built environment.

Environmental determinism does not always work -- ask any landscape designer whose grass is trodden while paths are left unused. On a larger scale, Weidemann, et.al. (1982) cite several examples of quite adequate housing that was rejected by the residents. It is

suggested that important social, cultural, and economic differences between those who direct and design housing programs and those who are the recipients may result in important user needs being unrecognized and unmet. In other words, the Environmental perspective is weakened by viewing social and cultural aspects of human life as reactive rather than proactive. Further, social and demographic factors of neighbourhoods may distort findings (Greenberg & Rohe,1984) so caution is advised in the use of the Environmental Model and in the analysis of its findings.

There are two major branches to the model as it is applied to the study of crime. One utilizes the principles of territoriality by suggesting that certain design features encourage use of space and this results in feelings of possessiveness so that residents will defend the area. The other approach suggests that various behaviors will occur if there is opportunity and that certain design features will either facilitate or mediate against the behavior of interest. These two components are discussed below.

Defensible Space:

The defensible space concept was first elaborated by Oscar Newman (1972). It is really an outgrowth of the ideas proposed by Jane Jacobs (1961) wherein she suggested that mixed use of property should generate traffic throughout the day and well into the night. Her point was that this constant activity created a vibrancy and excitement that would be beneficial to city residents in the form of increased enjoyment of and safety in the urban environment. Newman noted that as residents move about the area freely and regularly, they become more familiar with their neighbourhood and with each other than might ordinarily be the case if they must leave the area to shop, attend school and work, etc. Strangers and/or unusual activities are quickly noted and more likely to be investigated in this milieu. As Newman's examination of this premise progressed, he noted some refinements especially in the effects of building/complex size and building heights: as building height increases, for instance, it becomes more and more difficult for residents to use and control the space outside their apartments so they avoid the area. Newman suggests that there is a threshold effect, however, wherein the physical environment exerts little further influence after this

threshold is reached (Newman & Franck,1982).

Greenberg & Rohe (1984) note that "The defensible space approach to the design of urban areas has gained considerable popularity among planners as they have come to recognize that crime may play an important role in the deterioration of urban neighbourhoods" (p.48). Apparently the view is that "physical design can either release or inhibit people's latent sense of control and responsibility over the space they inhabit. Thus, land use characteristics and the design of streets, buildings, and building sites are believed to affect crime through the intervening variable of informal social control" (Greenberg and Rohe,1984; p.48) In practical terms this would mean intervention in neighbourhood disturbances (children fighting, for instance) and questioning suspicious behavior or the activities of strangers, just as Jacobs pictured it.

Clearly, there is an aspect of territoriality involved. Brower (1980) identifies three components of territoriality by which physical design is believed to affect crime: occupancy as communicated by signs, logos and the like; defense as it involves actions towards trespassers; and attachment or feelings of possessiveness. These are the mechanisms, then, by which individuals lay claim to some designated territory

(Brower,1980; Greenberg & Rohe,1984) which they then defend. In other words, territorial theory supports the concept of informal social control as mediator of criminal behaviors.

Territorial functioning has to do with access to space, what activities are appropriate, and who has control/responsibility for the conditions of use (Taylor, et.al., 1984). Normoyle and Lavrakas report on the links between perceived territoriality and perceived control and predictability. They would agree with Taylor that territoriality stems from feeling one has the right to the use of an area and has, also, some responsibility for the activities that occur there. Having control over activities makes them more predictable and as crime is generally seen to be a random and unpredictable event, fear levels should diminish. Taylor, et.al. (1984) finds support for the role of territorial functioning as it is described here and suggest that clean-up projects, beautification contests and the like may result in an involved attitude towards public spaces adjacent to home, thereby further decreasing fear levels.

Opportunity:

The opportunity concept depends less on the mediating behavior of residents in that it suggests that crime occurs whenever there is opportunity. If there are alcoves where criminals can hide while breaking in or in which to take shelter during escape, criminal activity is less likely to be challenged and the criminal less likely to be caught. Anything in the physical environment which impedes surveillance contributes to the efficacy of this model.

If traffic access to an area allows many strangers to come into a neighbourhood and to make a quick escape, criminal activities are further facilitated. Greenberg and Rohe note that the boundary characteristics of a neighbourhood might be as influential as the traffic patterns and interior characteristics within the area. They suggest that expressways or railways may effectively shield a neighbourhood while commercial developments are likely to draw strangers to the area.

The major difference between the "defensible space" concept and the "opportunity" approach is in the amount of social input that is required for each model to work. This is traced by the identification of the

intervening variable: Is it informal social control or access and opportunity that governs the effect of physical design on criminal behavior? The answer is clearly up for grabs. Greenberg and Rohe (1984) cite a number of studies that show that empirical research often does not support any "straightforward link between physical design and informal control" (p.49). But Newman and Frank (1982) indicate that building size does appear to be linked to the ability of residents to use or to exert control over the space outside their apartments.

These apparent contradictions do not mean that social researchers can afford to ignore the physical environment. It may have effects beyond a direct influence on the fear of crime. For instance, research has been conducted which examines the effect of the physical environment on another mediating factor - social interaction (Athanasiou & Yoshioka,1973; Gans,1972; Kennedy,1978; Michelson,1970,1977) Newman and Franck report that the larger the building, the lower the level of social interaction. This indicates that relationships among residents of multifamily complexes may be problematic. Kennedy's findings would seem to support Newman and Franck for he reports that residents of multifamily complexes are less likely than those in single family dwellings to know their neighbours but they are

more likely to spend time with friends.

One might posit that this contrast between those dwelling in the two housing types could indeed be attributed to specific environmental factors, particularly as they affect comfort levels and privacy. Many multifamily complexes are far from sound-proof and neighbours are often privy to the private business of the family next door to a degree that could be embarrassing between friends. Apartments often lack space for hobbies and direct access to adequate outdoor space as well as privacy so the greater inclination of multi-family dwellers to visit friends may be an escape response from what may be essentially an uncomfortable and inconvenient environment. Without details of the environments that they visit no confirmation of this statement is possible, of course. The disinclination of the single-family dweller to go out may have to do with the fact that the home may offer the attractive facilities not available in multi-family complexes. Or he/she may not have as much time for visiting beyond a short chat with a neighbour as he mows lawn, weeds gardens, repairs and repaints --- duties from which the multi-family dweller is largely exempted.

This discourse on the possible effect of the physical environment on social interaction is tangential

to our central interest - the fear of crime. However, it does illustrate the ways in which the environmental model might be employed to explain some social phenomena. If indeed, the Environmental Model can show that behaviors can be changed in association with physical aspects of the environment, the potential is clear: It is far easier (and likely cheaper) to change physical characteristics than to change social components.!

Perception of Environment:

The effect of the physical environment is more subtle than merely providing barriers or not and in order to assess these tenuous influences we must gather subjective information. Perceptions of an area lead to various expectations of appropriate behaviors, potential activities, and the like. The hope of the architect is that design factors alone will manipulate these perceptions and expectations. Social researchers, however, fully acknowledge the power of cultural and social influences on perceptions. Further discussion of the processes by which perceptions are formed can be found in the review of the Social Psychological Model.

In a discussion concerned with the effects of crime, one must concentrate on those environmental factors

which might be viewed by residents as signs of crime. Basically these are the signs of incivility as described by Baumer (1983). Maxfield (1984) reports that "perceptions of social disorder are most strongly associated with fear in the neighbourhood where respondents most often reported signs of incivility as a problem in their community" (p.247). Whether or not these perceptions are accurate matters very little for, as explained in the psychological discussion below, humans will react to what they perceive to be true whether or not the perception matches reality. In any case, as Smith (1983) notes, perceptions of crime are shaped less by known occurrences than by environmental signs of decay and disorder. She cautions, however, that signs of incivility are more likely to link to concern for crime rather than to fear.

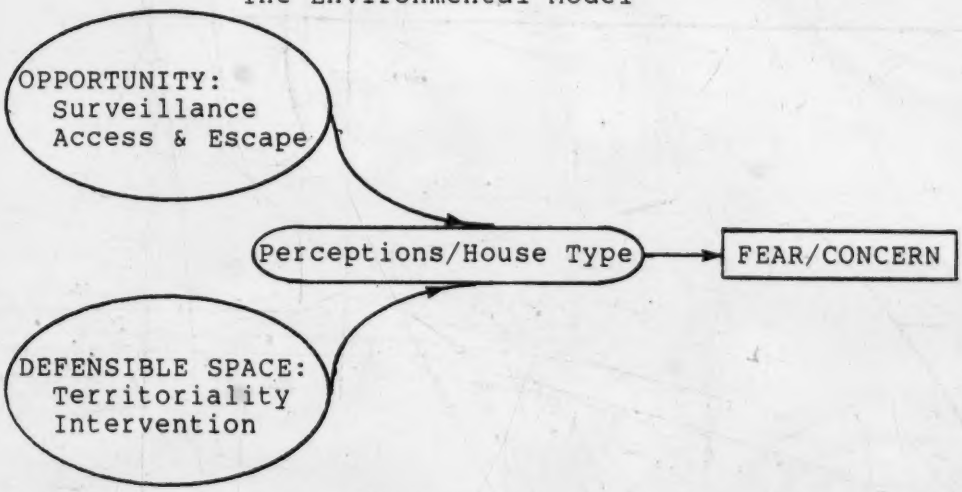
Illustrating the Model:

Physical design factors like street layouts and traffic patterns, residential complex design, residential and commercial mix, house types and values, and the like are all on record and fairly easily accessed. Objective information that is unavailable via municipal records can be obtained through on-site observations. Subjective data

can be aquired as to the respondents' reactions to various physical features such as abandoned buildings, vandalism, satisfaction with their house and with neighbourhood facilities, and so on. Measurements of social influence, in this case intervention and informal social control, are also possible.

An illustration of the Environmental Model as social researchers would apply it to the fear of crime can be found in Figure 3.

The Environmental Model

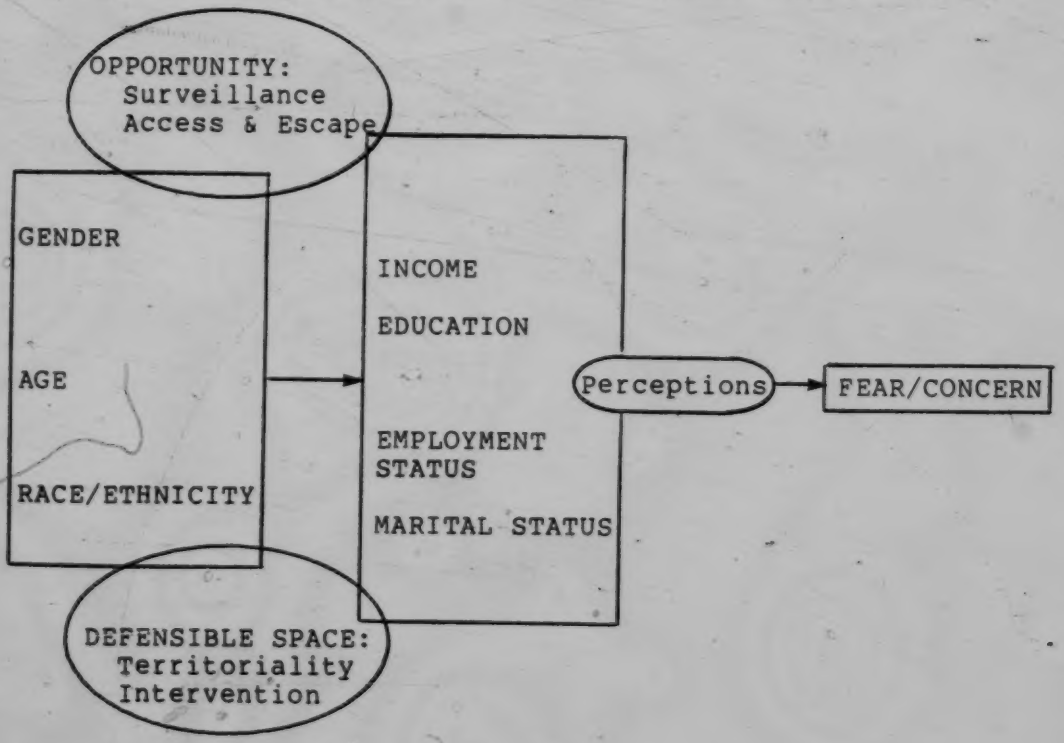


- Figure 3 -

The boundaries of the Environmental Model, like the Structural Model, are clearly specified. But the illustration shows that there are many indicators that might contribute information that are not included in the

construct. There is no attention to the individual nor to cultural or social influences beyond intervention behaviors and this truncation is the major criticism of the model. However, if we were to add these factors to the taxonomic structure begun in the discussion of the Structural Model, it becomes clear that additional information could easily be incorporated into the study. The updated taxonomy can be illustrated as shown in Figure 4.

The Environmental Model In The Taxonomic Structure



- Figure 4 -

Like the Structural Model, the Environmental Model is comprised of components that are generally beyond the control of the individual. Put another way, we are born with a given set of abilities, into certain ethnic groups, and, medical miracles aside, our gender and age are set. Similarly, except for our most personal surroundings, for the most part few changes can be made in the physical environment. However the Environment can and does change over time. Hence, though some might argue that environment is really the starting point of any comprehensive taxonomy or that it should provide the foundation for all behavioral models, the reality of life is that the environment is simply a dynamic part of the package of "givens" with which humans must cope on a daily and ongoing basis.

Given the ability of the individual to "cope", the models that follow are rather more flexible -- the individual has greater input, greater control in dealing with their factors than can be said for the models reviewed above. The models to be discussed in the following section therefore require more subjective information and they incorporate important behavioral and psychological indicators that have thus far been ignored.

They concentrate on various behavioral systems and the activities that occur in the course of work, play, and social interaction. These can be clearly tallied. However, subjective information is required as well for an important aspect of behavior as it affects the fear of crime has to do with perceived risk, satisfaction with social activities and the like.

Routine Lifestyle Model

Exposure to Risk
Individual Characteristics
Updating the Taxonomy

The foundation of this model lies in the idea that "Routine daily activities affect the likelihood that property and personal targets will be both visible and accessible to illegitimate activities" (Kennedy,1983; p.77). In other words, as daily activities take residents away from their homes, property becomes more readily accessible to thieves and vandals. The person may also be more exposed to potential personal assault and robbery, depending upon transport type, destination and so on. Criminals will time their activities to take advantage of these vulnerable periods (Felson & Cohen,1980).

This approach to social research pays little attention to psychological factors (except for role

socialization) or to the physical environment. The Routine Lifestyle Model is addressed by questions about job choices, entertainment choices, shopping patterns, memberships in clubs and other routine activities.

Some researchers apply the model in an attempt to explain the differences in victimization rates by proposing that women and the elderly routinely are less likely to venture out into risky situations than are men and the young. In other words, their relatively high levels of fear are adaptive in that they result in precautions, in "differential exposure", as the explanation for the differing victimization rates. However, Bowker (1979) points out that women are most likely to be victimized at home so self-isolation may actually place them in more risky circumstances!

Though many studies support the idea that fear and isolation are linked, they are not always associated. Jeffords (1983), discusses evidence gathered in Florida which suggests that those who were most fearful were also those who were most often outside their homes. The interpretation of this was that, by the very fact of their activities, these people were more aware of potential dangers than were those who stayed at home. Nor is there necessarily a consistent relationship between age and fear of crime, according to Jeffords, for the relationship

between activity levels and fear levels described above held for the elderly as well as for younger persons. In other words, Jeffords is suggesting that the association between age and fear is situation specific.

Exposure to Risk:

As applied to the study of the fear of crime, the major component in the Routine Lifestyle Model is the degree of exposure to risk on a regular basis for both voluntary and involuntary reasons. Basically 'exposure to risk' might be broken down into two categories: absolute and relative. The original concept is drawn from Gottfredson (1981) but as Smith (1982) explains the categories: 'absolute' exposure may be taken as the level of exposure to risk necessitated by normal daily activities; relative exposure reflects any factor which increases the odds of victimization beyond the norm. Work hours and necessary travel times may require that a person be outside the safety of his/her own home during dangerous times of day. Various types of employment may increase the chances of personal victimization with police and security guards among likely candidates. Voluntary behaviors such as frequenting bars and saloons, attending soccer matches and so on may also increase chances of

personal attack.

Those who spend long periods away from home may be more vulnerable to property victimization than those who are home regularly for as time away increases so does vulnerability (Stafford & Galle,1984). This is especially true for single people who are less able to ensure that their home is occupied when they must be away.

Merely counting the numbers of hours when one is away from home may not give enough information. The equation must include hours of employment and the time of day for each activity, each destination and each use of transport if the tally is to be complete. Another important part of any analysis of exposure to risk is to catalog places visited, activities, transportation used, and the types of people with whom one comes in contact. Even casual conversation may reveal ownership of some valuable (to the criminal) property. Another factor to be considered is the amount of public information available about various activities: coin collectors, for instance, rarely publicize their meetings for that would be a sure signal that the homes of people owning valuable property are likely to be vacant on some specific evening.

Widom and Maxfield (1984) note the influence of sex roles in particular and suggest that women who follow the proscribed sex role behaviors and get married and have

children have very little discretionary time in which to be out unaccompanied in risky situations. Women who do not follow traditional roles are likely to be out in the world far more, living lives not unlike young single men and their victimization rates should rise accordingly. (This might be construed in some quarters as a form of social control - sanction for failing to comply with prescribed roles). Conceivably, however, this more active lifestyle could result in higher fear levels because of increased awareness of potential risks as the Florida Task Force found for the elderly and not because the victimization rates change.

While all these activity factors allow a certain amount of 'opportunity' for victimization it must be noted that they are mediated by the precautions, if any, that are taken by the potential victim. In other words, by not taking precautions, the victim is facilitating the criminal (Smith,1982). Failure to take precautions increases the "attractiveness" of the potential victim in the eyes of the criminal. Part of the equation by which the criminal measures a potential victim has to do with the chances of reward as balanced against the risk of being caught. (Criminals, not unlike the rest of the population, prefer nice, clean easy work that provides a good return with few problems.) In other words, exposure

to risk cannot be accurately measured without some attention to the point that some victims are more attractive to potential criminals.

Individual Characteristics:

Because the focus of this model is on explaining the effects of differences in lifestyle on victimization rates and fear of crime, clearly one of the first individual indicators to be examined is gender. "Sex is a major indicator of lifestyle" according to Widom and Maxfield (1984; p.1). The comment applies, as well, to age and to race/ethnicity.

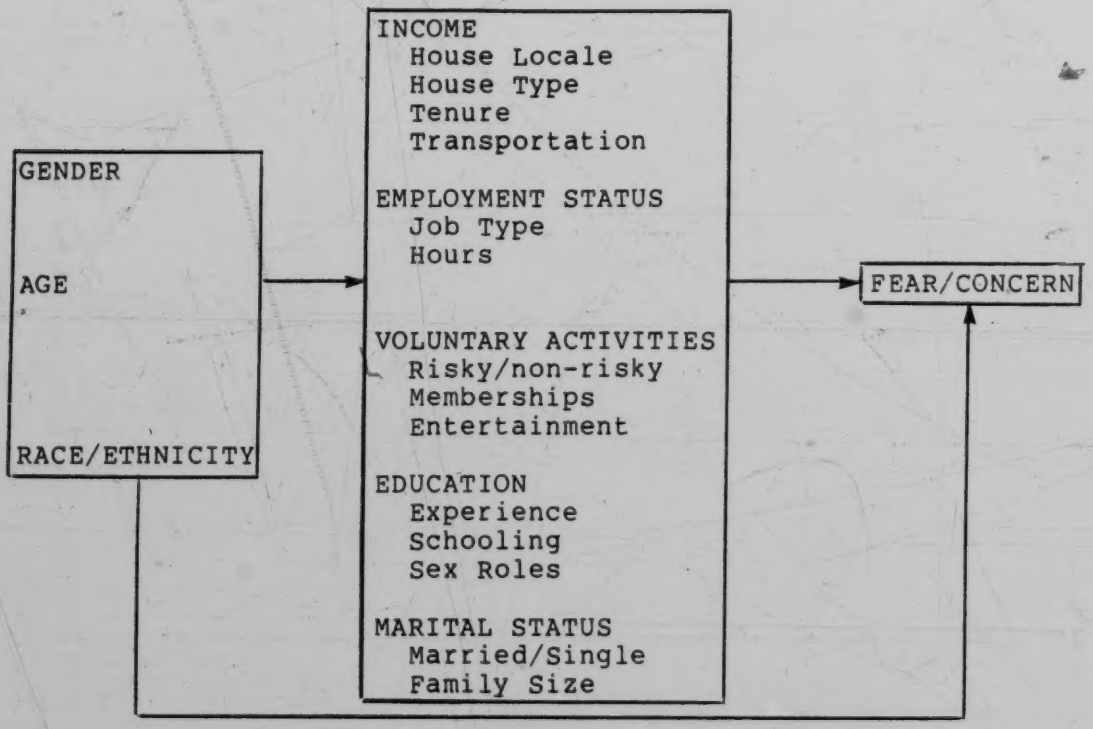
Work may place people in risky situations or require that they be out at dangerous times of day so employment status is to be included. Similarly, income and education can dictate daily activities as can marriage and family status. Social participation in voluntary activities outside the duties connected to work and marital roles completes the research package.

Updating the Taxonomy:

While the Routine Lifestyle Model is a useful model which is focused on specific underlying issues to be considered in the study of fear of crime, it is clear that

the contribution is truncated by inattention to the psychological and environmental aspects of social life.

Variables in the Routine Lifestyle Model

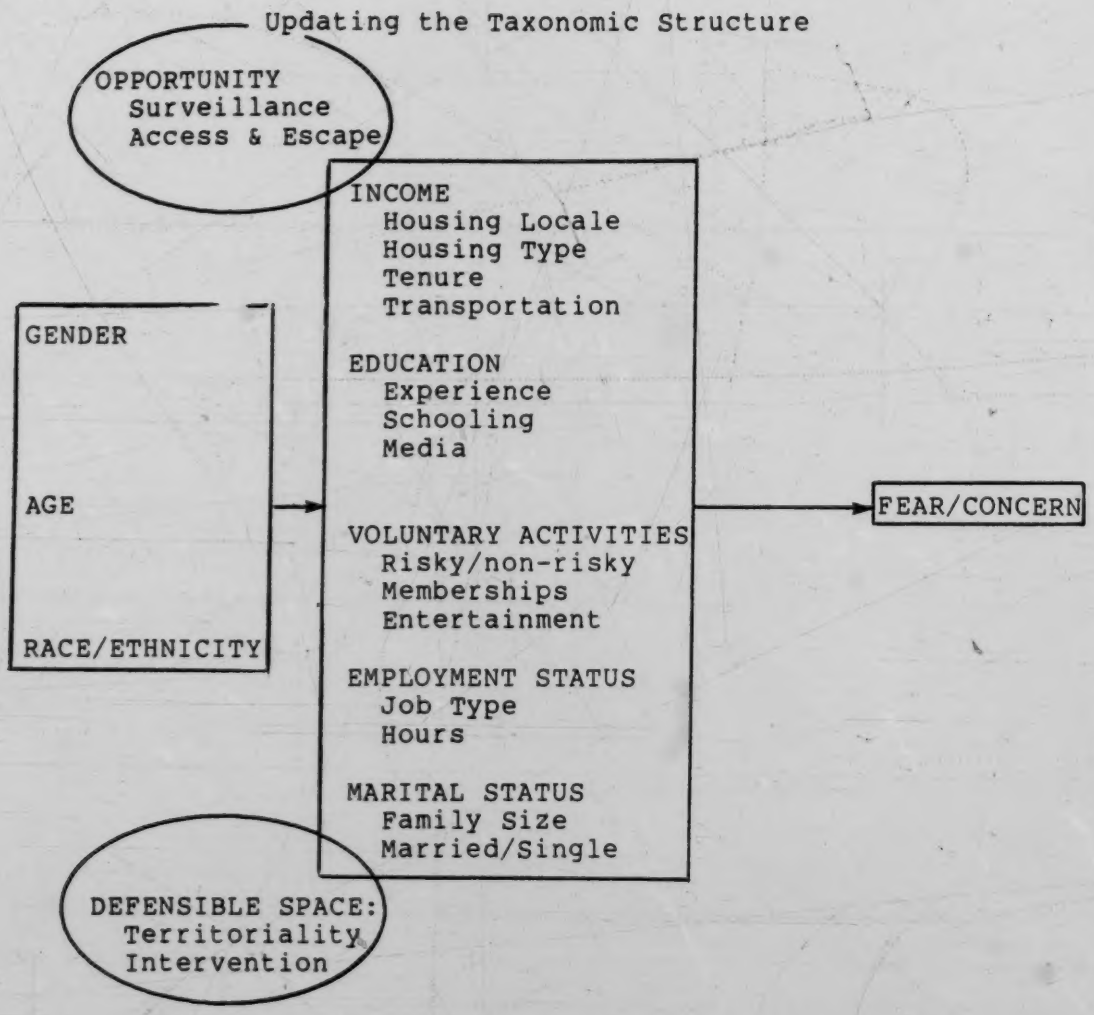


- Figure 5 -

Because the emphasis is on the routine activities that are suggested by membership in different demographic groups, the only additional variables to be added to the basic variables found in the modified Structural Model are those associated with voluntary activities. The indicators are interpreted differently however for the emphasis has changed from the basic demographic data to

the other indicators: employment status (this time the hours and type of work are of particular interest); income as it affects living locations and transportation; education as it might affect choices in various activities; and family status as it may affect number living in the household and other more social activities. Age, Gender and Race/ethnicity now become control variables.

Combining Figure 5 with the others on the taxonomic structure yields the illustration shown in Figure 6. Note that, except for voluntary activities, we have not added any further variables. We have, however, added indicators which are pertinent to each variable as it affects the fear of crime. However, only a cursory review of the illustration reveals that several important variables are still missing from the taxonomic structure.


Updating the Taxonomic Structure
OPPORTUNITY
Surveillance
Access & Escape
INCOME
Housing Locale
Housing Type
Tenure
Transportation
EDUCATION
Experience
Schooling
Media
VOLUNTARY ACTIVITIES
Risky/non-risky
Memberships
Entertainment
EMPLOYMENT STATUS
Job Type
Hours
MARITAL STATUS
Family Size
Married/Single
GENDER
AGE
RACE/ETHNICITY
FEAR/CONCERN
DEFENSIBLE SPACE:
Territoriality
Intervention

- Figure 6 -

Social Support Model

Primary Group Support Systems
Secondary Group Systems
Updating the Taxonomy

There are several similarities between the Routine Lifestyle Model just reviewed and the Social Support Model. Both are founded in social organization analysis but are focused on only a small segment of the parent model. Both are behavioral models which require objective tallies of certain kinds of activities and subjective judgements as to whether those activities are risky or not, as discussed above, or whether the activities are satisfying.

The Social Support Model focuses upon mutual support systems. Because humans are social animals the importance of the role of the social support system must not be underestimated. Hence, though this is the most limited in scope of any of the models discussed thus far, the analysis of the social network warrants separate discussion.

It has been said that the more socially isolated one is, the more likely one is to be fearful (Silverman & Kennedy,1984). However Eve & Eve (1984) suggest that fear of social change - which is the operationalization for concern as it is outlined by Furstenburg (1971) and by Clarke & Lewis (1982) -- may be mitigated by the available

social support system. This social network includes relationships with family, close friends, aquaintances and other associates and, as Riger, et.al. (1981) point out, support networks need not coincide with geographically defined areas. In other words, the social network should not be measured solely in terms of neighbourhood relationships.

Primary Group Support Systems:

The most basic component of the primary group is, of course, marital status. There appears to be a good deal of difference in the fear levels expressed by those who are married and those who are single, separated, or widowed. Silverman and Kennedy (1984) indicate that, among females, living alone may be a stronger predictor of fear than age. There is a logical reason for greater fear amongst single people for as Smith (1982) points out, "single persons are less likely than members of large families to be accompanied out of doors, and less able to ensure that their dwelling is occupied when they themselves are absent" (p.390). Clearly people who are living alone are more likely to be vulnerable to both personal and property crimes.

If one was to picture this model in concentric

terms, the next "ring" includes children, parents, siblings and very close friends. Often the elderly person retires just as grandchildren are leaving home, and daughters and daughters-in-law are branching into time consuming careers. When it may be most needed, the social system upon which the elderly person depends may seem to fall apart. Yet the desire to maintain autonomy may be a strong one and the elderly who wish to continue living in their homes may pay a steep price in terms of increased social isolation and greater fear (Kennedy & Silverman,1985).

The third ring contains relationships formed through memberships in churches, clubs, and the like. Basically they are activities pursued voluntarily and the friendships formed are based on common interests. The activities that are implied by these memberships are pertinent to the Routine Lifestyle Model as well.

Secondary Group Systems:

The secondary group support systems form the outer rings of the concentric portrayal. Neighbourhood and work relationships belong here in that they are not necessarily voluntary so the friendships may be more impersonal than the primary relationships. Secondary

group systems also contain committed volunteer work, work in political causes, sports clubs and the like. While these activities are equally as voluntary as club memberships, they are a little more 'work-like', more committed in terms of time and feelings of duty, more intellectual and purposeful in nature and though the relationships formed in these contexts may be more impersonal than those in the inner core, it is likely that a substantial degree of satisfaction is found in this sort of contact with others.

Yin (1982) makes the point that people having a strong social support system may be less debilitated by their fear because, though the social support cannot reduce the fear, it can offset its consequences. In other words, an active social life filled with social and voluntary commitments cuts time and opportunity to dwell upon the fear one feels. However, it may be that the social support system does indeed have two qualitatively different components. Riger, et.al., 1981 using multivariate analysis found that social interaction with neighbours did not appear to have any impact on fear levels, for example.

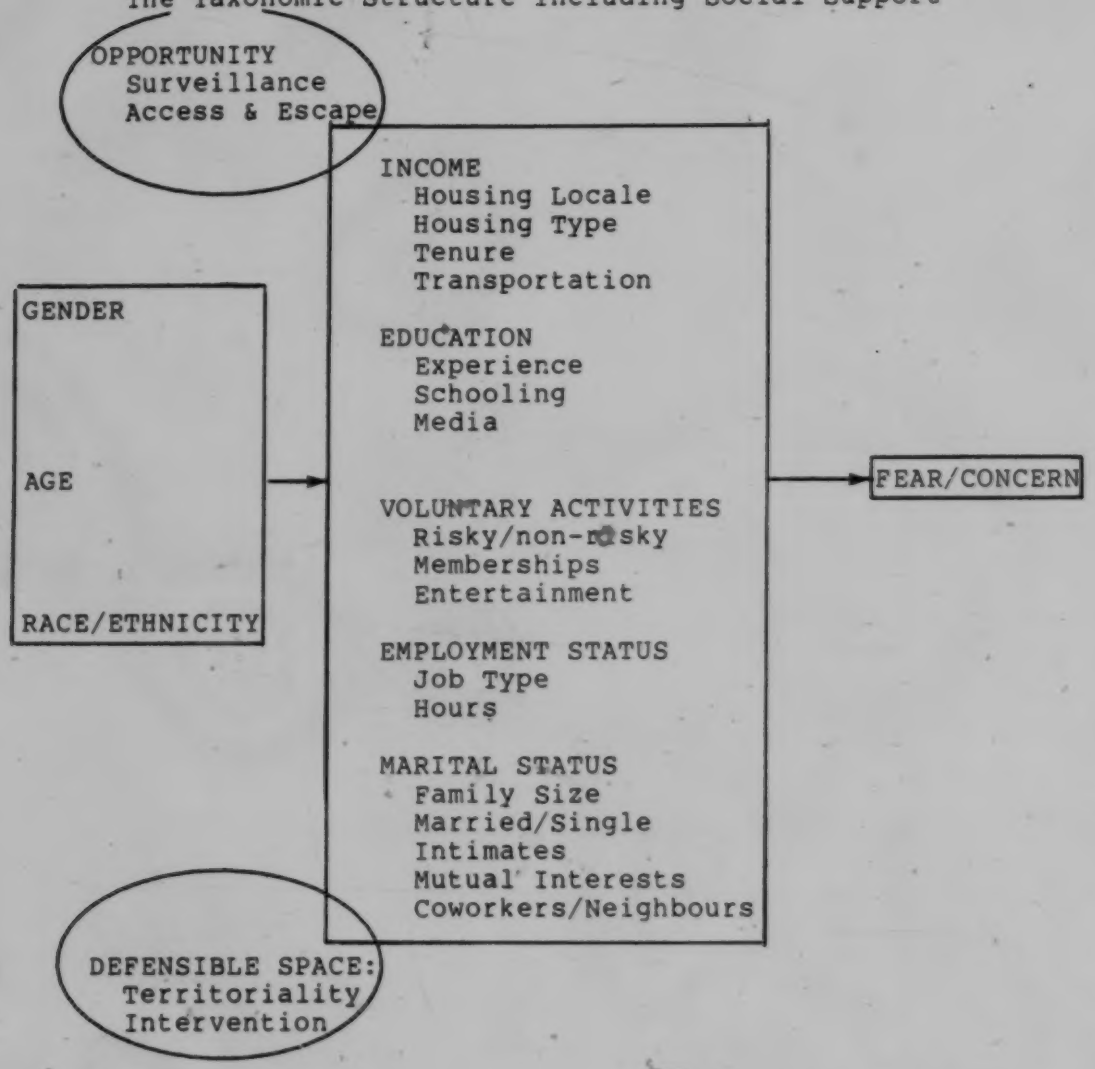
Wilks (1982) indicates that people who have been victimized are less likely than non-victims to feel that

their neighbours would intervene or would be interested in fighting crime through neighbourhood watch programs and neighbourhood social support networks. It is not clear whether this perception comes from the psychological consequence of being victimized or if, indeed, in the sample used by Wiltz, there are different characteristics in the neighbours of these victims. Wiltz points out that people who lack neighbourhood social support networks are not likely to find much security in a watch program in any case.

Updating the Taxonomy:

This discussion has portrayed the Social Support Model in terms of concentric rings. However, it is important to note that it is the process of social influence that is the actual mediating factor as one "validates" opinions, attitudes, and perceptions of the community in the due course of the social interaction which occurs during social activities. This social interaction, if it is satisfying, also provides a sense of unity with others -- one is not alone against the world. These functions will be discussed more thoroughly in the section dealing with psychological processes (see below).

The Taxonomic Structure Including Social Support



- Figure 7 -

Without doubt the core of the social support model is marital status and it is this variable which will expand as the model is placed into the taxonomic structure (see Figure 7). However, it should be noted that marital

status is frequently found to be a powerful predictor of fear of crime so it may not be generally necessary to include the other factors except for a specific and intense examination of the role of the social network.

It is important to remember that the perceived quality of time spent with others is as critical as the quantity. Put another way, subjective measures are more predictive of the degree of mediation of fear levels than objective measures in this case. The comments which close the discussion of the Social Support Model suggest that despite the fact that subjective data is very difficult to check or to replicate, that there are times when such information is both more informative and more efficient than strictly objective tallies, demographic or environmental data, and the like. The models which follow all depend largely upon subjective information and their contribution is no less vital to social research than the contribution of the more objective perspectives.

Social Psychological Model

Concept Formation
    Causality and Power
Social Influence & Comparison
Socialization
    Attitudes
    Perceptions
    Sex Roles and Dependence
Altruism and Intervention
Individual Characteristics
Updating the Taxonomy

The perspective of the Social Psychological Model is in direct contrast with the ecological approach. While a major criticism of the Structural Model is that it fails to address the interests of individuals, the Social Psychological Model is very definitely concerned with individuals and with the effects of social and environmental processes on their lives. Conversely, this model tends to ignore the macro-processes of societal organization, ecological systems, and the like.

Strictly speaking, psychology is the field that is most concerned with the study of individual behavior but some sociologists feel that knowing something of an individual's frame of mind may help explain some of the interactions that occur between the individual and others. Social psychology, as the term implies, is the study of interpersonal behavior and extending this perspective to sociology gives the study of interaction between groups. In actual practice, sociologists are interested in all

three approaches as they try to define the underlying principles that govern the nature of interaction. Behaviors are broken into components so that they may be studied more intently and this actually allows a great deal of control and specification of conditions.

Unlike the objective models, the boundaries for the Social Psychological Model are not firm. For researchers who require a specific framework, this is indeed a problem. A further criticism leveled at the Social Psychological Model is that, for the most part, it uses subjective data rather than objective material. Subjective research is not easily replicated, even within the same group. In other words, it may be impossible to duplicate conditions and therefore findings often cannot be repeated. Hence, a single study can give no definitive answers, no specific directions. Even a substantial number of studies may only identify trends, potential behaviors, and so on, so it is difficult to base firm policy recommendations on subjective data. Despite these criticisms the Social Psychological Model can provide valuable information about human behavior. Though the findings cannot be cast in concrete, it should be recognized by even the most critical objectivist that human beings are rarely objective and therefore measuring their behavior in strictly objective terms is quite

unrealistic.

The Social Psychological Model is concerned in particular with the ways that humans influence and care for one another, with the way they organize information, and with the effect of socialization on attitudes, perceptions, feelings, motives, and so on. The way in which humans form concepts and organize information is innate, common across cultural lines. Altruistic behavior is adaptive so it too may be inborn. Similarly, the processes underlying social influence and socialization transcend ethnic and cultural boundaries. We are suggesting that these abilities, these ways of associating with others are as much a part of the "birth package" as is gender, body size, or eye color. Because these abilities are the foundations of human behavior, a closer examination of these basic influences is imperative.

Concept Formation:

In order to survive, humans (and other animals) must be able to make sense of the world around them. So that the physical and social environment will appear orderly, humans place the things they encounter into conceptual categories. It is through this process of classification that people avoid being overwhelmed by the

variability of their surroundings. A taxonomic structure, of sorts, is formed so that one category can be compared with another and the members of those categories dealt with accordingly. This conceptual structure is somewhat arbitrary in that it is a result of total intellectual and emotional learning experiences to date.

Oversimplification, however, may result in important aspects of a situation being ignored if all members of a category are seen as equivalent. Genuine dangers may go unnoticed, for instance. Similarly, when people feel powerless, unable to control a given situation, it may be because they have ignored alternatives that are available to them.

Causality and Power:

The conceptual structure is functional in that it not only facilitates comparison of one category with another but it allows explanation of apparent associations of one category or event with another. Causal attribution, as it is termed, allows us to see that events do not happen randomly. This facilitates feelings of confidence for there is a tendency to expect that if one knows the cause of some occurrence, one can therefore influence or control its outcome.

Heath (1984) discusses an example of the important effect of causal attribution. She gives the following newpaper reports as an example:

> "A man and a woman were accosted and severely beaten in their home in a middle-class neighbourhood. No robbery was commited, and the assailants were still at large. One local newspaper ended the account there. The other newspaper added the information that the male victim had recently been indicted on several counts of promoting junvenile prostitution."

The first account portrayed the incident as if it were a random event. If the victim did nothing to precipitate the crime, the reader can do little to avoid a similar fate so the report is frightening. The second account allowed readers to "regain control" of the situation by attributing the cause of the incident to some characteristic or action of the victim (Heath,1984).

Further to the discussion of causality is the contrast between internal and external causality: the former view says "I can have influence; I can change things..." while external causality suggests "What will be, will be ..." These somewhat polarized perspectives can have considerable effect on one´s sense of competence and ability to control various situations. If, as it has been suggested, feeling competent and "in control" mediates fear levels (Eve & Eve,1984) causal attribution has important implications for the effects of

socialization as they are particularly evident in the different sex roles.

Social Influence:

Every bit as basic as the categorization process discussed above is the need to compare self with others. It is the foundation of learning appropriate behavior. Humans compare themselves physically, they compare abilities, and they rate themselves on some arbitrary scale all in an attempt to find a place within the human taxonomy.

The most frequent comparison of all is between personal attitudes and perceptions and those of others. Their agreement is our validation. There is a tendency to select "similar others", people who we see as being similar to ourselves, as a basis for comparison but this "need for norms" is so great that people will seek the opinions of others even in clearly illogical circumstances. An example of this drive for validation of one's own feelings and opinions is evident in the reactions of victims of disasters, accidents, illnesses or crime. Apparently the victim seems to need assurance that the intense bad feelings are indeed appropriate to the circumstance.

There is a broader version of social comparison that is also pertinent to the study of fear of crime. Heath (1984) points out that in negative circumstances "people can reduce anxiety and increase their subjective well-being by comparing themselves with others in more dire straits" (p.265). In other words, there is comfort to be found if crime in another city is a more severe problem than crime at home. Not only the number of crimes is considered in this sort of "downward comparison" but whether or not the crimes in other centers are more sensational, more bizarre. As Heath says "Sensational crimes achieve their spine-chilling quality from either severe violations of social norms or from violations of deeply engrained social norms" (p.264). A simple murder is one thing but hacking up the victim's body is something else again. This process of downward comparison only functions to allay fear, of course, as long as other centers really can be adjudged to be worse. For those living in a center where crime is both frequent and grisly, fear levels are conceivably compounded by comparison with other cities.

Victims are particularly susceptible to social influence: the experience is arousing and confusing. This can have a direct effect on the actions a victim takes in deciding whether or not to report a crime. According to

figures quoted by Ruback, et.al., (1984) well over half of the victims studied by various researchers have had some advice and support from at least one person before reporting the crime. Once it has been decided that a crime has indeed occurred, the victim will need to evaluate the consequences of taking various actions: to retaliate, to reevaluate the situation, to report the crime to the police, or simply to do nothing. At each stage of this decision-making process the victim is open to influence (Ruback, et.al., 1984) that can take the form of prompting or suggesting possible options; of simply giving information; and emotional support. The agitated victim is not always able to judge the quality of the advice so the mechanism of social influence is particularly powerful in this case.

Socialization:

Socialization is the process by which we aquire the behaviors, attitudes and other personal characteristics that allow us to fit into our culture as individuals and as members of various groups within that society. Every society imbues its members with cultural rules, moral values, appropriate expression of aggression, dependence, sex roles and the like. Criminal activities,

for instance, are sometimes portrayed as an inappropriate expression of aggression and they provide an example of society's way of dealing with those who have not learned their lessons well. Attitudes, perceptions, and sex role development are components in this subset that are particularly pertinent to the study of the effect of crime.

Attitudes:

Attitudes tend to be shaped by the people with whom we associate and by those who speak to us via the media, the classroom and the like. There are three basic components: affective (feelings), behavioral and cognitive (perceptions). These combine to create a disposition to behave in a certain way towards some person, object, or idea.

Attitudes are organized so that conflicting opinions about the same thing do not develop, or so that views about different things do not predispose to conflicting thoughts, actions, and emotions. If some conflict does occur, perhaps through a disagreement with an intimate, a reorganization process occurs so that the relationship between feelings for the person and those towards the issue at question can regain coherence. This

principle of organization helps reduce information processing to a manageable level in similar process as utilized during Concept Formation.

Perceptions:

Perceptions are rooted in our attitudes. They are formed with very little input and they vary widely. Three people meeting the same stranger might assess her as "quiet", "dull", or "mysterious" and their expectations of her in future would be quite different. Similarly, perceptions of wider social phenomena, of physical environments, and so on are the basis of our expectations of the experiences that might occur within those contexts. That is why the Environmental Model and the Cognitive Model (discussed below) use environmental perceptions as one guide to respondents' likely expectations of the chance of victimization.

For example, we may have been taught that responsible people maintain the buildings, offices and yards which they use in daily life. Responsible people are predictable and they can likely be trusted. Part of this attitude package includes a contrasting view: People who allow their neighbourhood to become rundown must be irresponsible, therefore unpredictable, therefore

untrustworthy and/or dangerous. Hence a rundown area may be considered unsafe. In the oversimplification of the relationship of the components, the perception of the unkempt neighbourhood may not be accurate at all -- the area may house many poor but honest senior citizens who can no longer manage adequate maintenance for their homes.

The accuracy of perceptions matters very little however. A person will have expectations and reactions according to his/her view of the situation and not to what may truly exist.

Sex Roles and Dependence:

Gender is the most significant factor in a person's life. Its influence on one's attitudes, perceptions and opportunities is life long and as Widom and Maxfield (1984) point out, "sex is a major indicator of lifestyle" (p.1). We noted some implications of this comment in our discussion of the Routine Lifestyle Model above. There are, however, more specific psychological effects, as people are socialized into their respective sex roles.

For the most part, human males are encouraged to be aggressive, or at very least competitive. Even small 'victories' are praised as the young male actively

explores and manipulates his environment. This must build confidence as he begins to see that he can control certain situations. Females, on the other hand are rewarded for obedience and conformity to rules made by others. One component of obedience is passivity for if one conforms one is also dependent upon the rules for direction. The result of these contrasting approaches to socialization, is that males tend to attribute the ability to influence their world to themselves (internal causality) while females attribute causality externally. One example of a passive (usually female) coping strategy is the self-isolation which is associated with the fear of crime (Kennedy and Silverman,1984; Riger, et.al., 1978,1981,1982). While researchers must recognize certain biological factors which may influence these differing male/female perspectives, the power of socialization should not be underestimated. The effect of a sense of competence and ability to control a situation may be an important mediator of fear levels, feelings of vulnerability, and the like.

Socialization appears to affect the attitudes of males and females in other ways, too. Lampe (1982) asked respondents to assign responsibility for crime to society, to the family or to the individual. Men, who are traditionally responsible for society, point to the family

as being secondarily responsible to the individual. Women, traditionally responsible for the family, see society in the second slot. One wonders what influence these attitudes may have in policy-making sessions!

Lampe (1982) also asked males and females to rate various crimes on several scales: most serious, most personally threatening, and so on. For women, rape is the most personally threatening crime (Lampe,1982; Warr,1984) while men place murder at the top of the list. Lampe notes that men did place rape as the second most serious crime, however. Except for rape, they generally rated property crimes as more serious than personal crimes, but Lampe reports "except for murder, females evaluated crimes against persons, such as rape, robbery, assault, child abuse and kidnapping more negatively than did males" (p.418)

Socialization is a continuous and dynamic process which lasts throughout life. An interesting example of this point is a study done by Kennedy and Krahn (1984) wherein they examine the link between the LOCALE of socialization and the fear levels of rural people who were recent migrants to the city. The two hypotheses with which they worked were contradictory: That people with rural origins might tend to trust others more and would

therefore experience less fear of crime than would those of urban upbringing OR that people with rural origins might find the urban milieu unfamiliar and therefore distressing and fear provoking. Kennedy and Krahn found that for the first two years of residence in the city, the larger the community of origin the greater the feelings of safety. Beyond that time threshold, the effects apparently disappear -- the migrant has been re-socialized.

Altruism and Intervention:

The norms and expectations of most cultures call for mutuality and concern for others. Prosocial behavior, as it is known, is a selfless and voluntary doing of "good" for another without expected personal gain. It can range from saving a life to merely opening a door. The particular form of prosocial behavior that is of interest to those studying crime effects is, of course, intervention in suspicious activities or in acts of violence. The study of "bystander intervention" has become an important field. One particularly interesting finding by Riger, et.al., 1981, notes that help is far more likely to be available if the witness and the victim are even briefly aquainted. This would seem to lend

support to the concept of "Defensible Space" as discussed within the Environmental Model.

Individual Characteristics:

There are a number of individual characteristics which are important to the social psychological approach. We discussed the profound impact of gender particularly as it pertains to sex role socialization and to the tendency to attribute causality or power to oneself or to others. Though the process of socialization remains constant, the learning and life experiences of a person born in one decade may be very different from those of someone born at some other time, so age is another important individual characteristic. The processes of concept formation and socialization are affected by all experience through life. Therefore education, employment and income experience, ethnicity, and marital/family status are all basic characteristics to be examined. Note how each of these characteristics have also been important to the models discussed thus far. Clearly they form a vital and objective foundation to all social research.

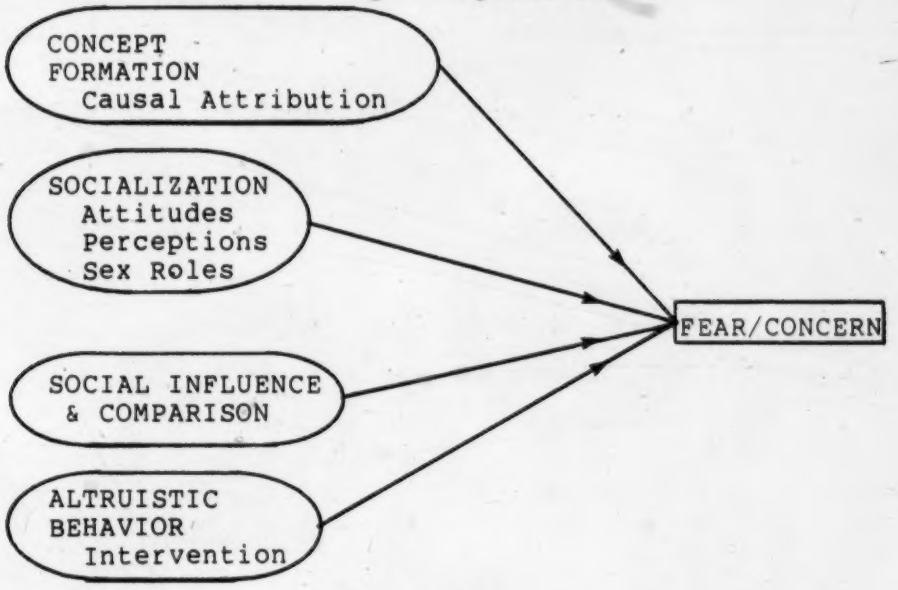
Updating the Taxonomy:

There are a number of different applications of the social psychological perspective. Those researchers who are closely associated with the psychological end of the spectrum are likely to use indicators that identify feelings of the individual about him/herself and about the world. Feelings of confidence, external/internal causality, and the experience of victimization are some areas examined. The researchers who are closest to the sociological approach will emphasize aggregate level indicators to examine more closely certain characteristics of a group in order to attempt to explain some social phenomena - such as the fear of crime as expressed by women or the elderly. The 'mid-ground' social psychologist will be particularly interested in the effects of social influence and socialization.

Because the Social Psychological Model is amorphous, lacking the specific structure shown for the more objective perspectives, illustrating it in general terms rather than for a particular study structure is risky. However, we suggest that it should appear as shown in Figure 8. Note that while all four components are seen to be innate abilities and processes that are used throughout life, that socialization, social influence, and

causal attribution are particularly dynamic in their effects. This ever changing and ever developing process is also the most influential in affecting fear levels. Thus the illustration is intended to convey both an ongoing and a channeling process.

The Social Psychological Model



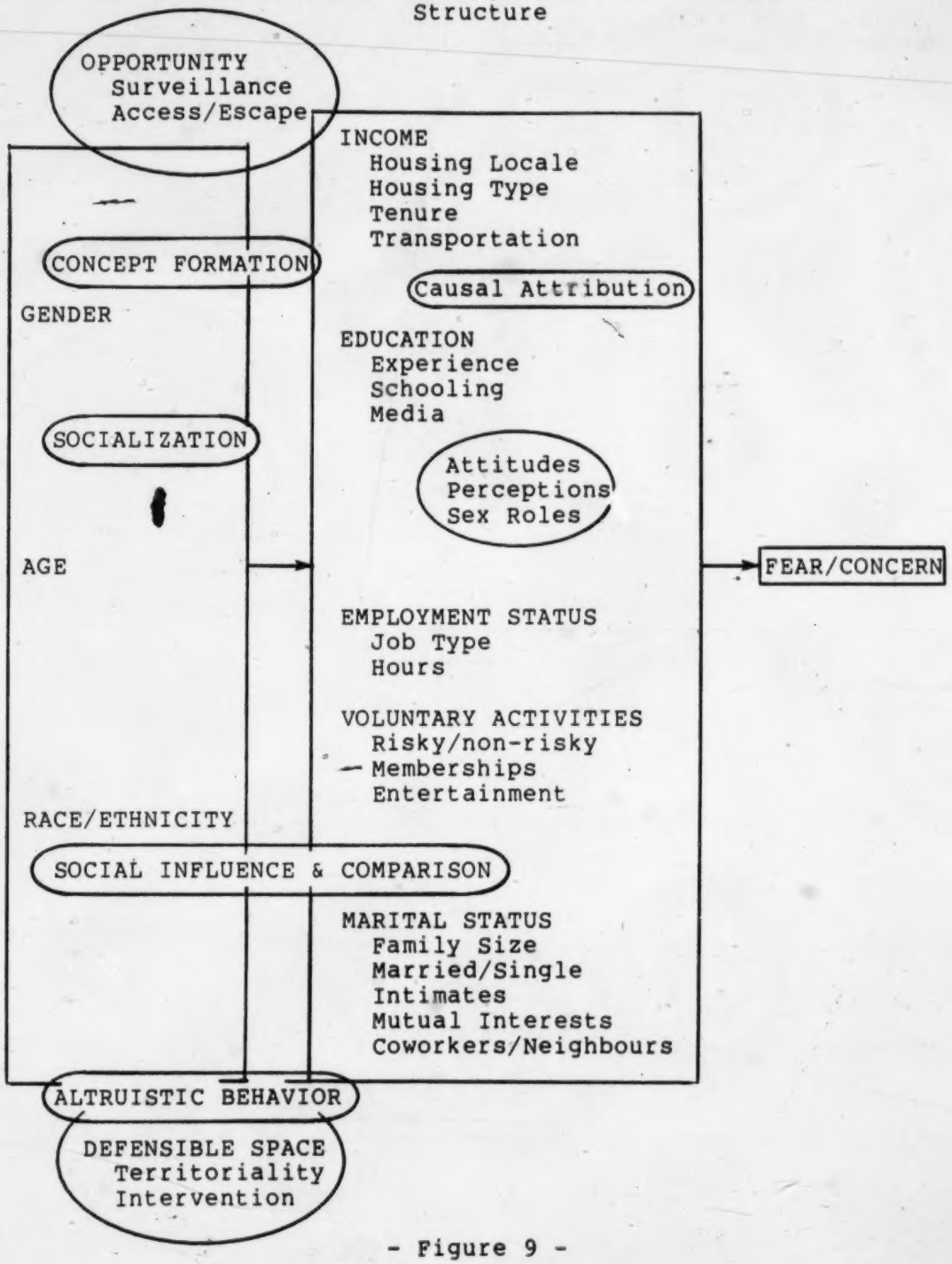
- Figure 8 -

Note also that these conceptual processes are not specific variables so they cannot be tallied in the same way as routine activities, for instance. What must be measured, instead, are the results of the processes so indicators most frequently used address attitudes, perceptions, and social influence effects.

It is clear that, without the individual demographic characteristics the Social Psychological Model would lack ability to explain or even to describe social associations so even this most subjective model is somewhat dependent upon objective information. The psychological perspective appears to ignore objective information about the environment, routine activities, social networks, and the like. However, people's feelings, reactions and attitudes are based on what they perceive to be true or real without regard to what IS true or real. Therefore, according to the psychological perspective, objective information of this nature may not contribute a great deal to our understanding of human feelings and behavior.

Figure 9 shows, for this illustration only, the Social Psychological concepts fitted with the variables which make up the taxonomic structure.

Social Psychological Concepts Within the Taxonomic Structure



- Figure 9 -

Note the overlap of the two "birth packages". This is intended to illustrate the close relationship between biological factors and psychological processes. The taxonomy now includes objective demographic and environmental variables, variables representing behavior, and some subjective variables. Note that as we move from left to right that the variables become increasingly more subjective and that the human animal has increasing input and flexibility in these contexts. For instance, the way one defines and plays out one's sex role is far more easily changed than is one's gender.

Though attitudes and perceptions are based in childhood learning, later experience in work, education, marriage and the like will allow for modification of the original opinions. One example of the way in which experience might modify feelings of fear of crime is in the experience of victimization.

Victimization Model

Consequences of Victimization
Personal History
Vicarious Experience
Coping Methods and Recovery
Summarizing the Model

"For every act of violence, there is a victim or victims. Many criminals are caught, but every victim is

always punished. ... Every single person in this country is a victim, directly or indirectly, overtly or covertly, ..." (p.1268). These eloquent words, spoken by Max Siegel as President of the American Psychological Association portray the heart of the Victimization Model. Given that much of the "punishment" inflicted upon a victim is psychological in nature, the model leans heavily upon the concepts discussed in that context. The processes of concept formation, socialization, and social comparison and influence are all touched by this experience.

The Victimization Model is really a branch of the Social Psychological Model, and as such provides an example of the way that the study of the subjective psychological processes can increase available information about human life. It is the model most concerned about the individual of all of the models discussed herein. It is also the most specifically oriented model, focused as it is upon a particular contextual experience. Aside from links to psychological processes, the Victimization Model has commonalities with the Social Support Model, particularly in examining the effects of social support during the recovery period. To a lesser degree, there are links to the Routine Lifestyle Model in trying to ascertain what behavioral contribution the victim may have made to his/her own victimization.

On an operational level, it differs from the Structural Model in the way it measures the incidence of crime: the victimization model measures both reported and unreported incidents. There is an advantage to this approach for police reports often lack information about the crime: whether or not the victim may have contributed to his/her vulnerability, the victim-offender relationship, etc. (Smith & Donnermeyer, unpublished).

There are further implications to measuring all criminal occurrences verses measuring only reported crimes. According to Bowker (1979) there is a considerable difference between reported crime and actual victimizations. This variance is crime-specific in that such crimes as forcible rape may occur as much as four-times the official statistics. This is particularly worrisome when one considers that Bowker is able to cite several sources that indicate that about one-quarter of all rapes are by multiple offenders. If being convicted and sentenced for rape is not an effective deterrent, imagine the licence that has been granted a rapist who is not reported! Other personal crimes such as assault, etc. are similarly unreported albeit the differences between recorded and actual rates may be less dramatic than those suggested for rape. Property crimes are also unreported because respondents feel that recovery of the stolen

items, for instance, is not likely or that the time required for the legal process is worth more than the lost item. Smith & Donnermeyer (unpublished) indicate that only about 25% of all personal and household larcenies are reported. These examples illustrate the point that total concentration on recorded objective information may distort the true picture of real world conditions.

Bowker also reports that victimizations of women are primarily cross-sex, commenting "Just under one-third of all assaults committed against women are aggravated assaults" (p.376) resulting in serious injury with or without a weapon. Further, while men are most likely to be assaulted in the street, women are most likely to be assaulted (by whatever means) in their homes. This is particularly difficult to reconcile with the "differential exposure" premise behind the Routine Lifestyle Model. If Bowker's statement is correct, the use of self-isolation as a coping strategy seems counterproductive!

It is logical to expect the link between the experience of both personal and vicarious victimization and fear of crime to be a strong one. However, there are findings that contradict this viewpoint and Miethe and Lee (1984) suggest that these inconsistent results might be attributed to the use of different measures of fear and to variable definitions of victimization. They indicate that

being the victim of one type of crime may result in very different effects than experiencing other victimizations so the relationship between fear and victimization might be masked if indexes fail to incorporate act-specific items.

Clarke & Lewis (1982) tested the possibility that vicarious victimization was as powerful a predictor of fear as personal victimization. They were unable to confirm this but they did find an association between indirect victimization and concern for crime. They suggest that knowledge of the victimization of others is an important information source and "as such is instrumental in influencing perceptions of safety within the neighbourhood" (p.58)

The focus of this model, then, is the experience of victimization, particularly as it affects the attitudes and perceptions of the victim in future life. Beyond identifying the patterns and associations of victimization with various groups as described above, there are at least four fields of interest within the Victimization Model: general consequences of victimization, personal experience, vicarious experience, and coping and recovery processes. Hence the study of the effects of victimization is no insignificant undertaking.

Consequences of Victimization:

Although there are no universal reactions to victimization, a number of things may occur when a person is a victim of crime. Coates and Winston (1983) note that a large proportion of victims express intense sadness and anxiety. Rape victims, for instance, display higher levels of depression for at least a year after the attack. Perloff (1983) also notes a greatly increased sense of vulnerability as a common reaction to victimization. These reactions are common to victims of serious illness, natural disaster, accidents or bereavement as well as to victims of crime.

Humans need to view the world as an orderly, predictable place and the experience of victimization upsets this perception. The result of this profound psychological upheaval is that the victim tends to deal uncertainly with the world until a new equilibrium is achieved. Janoff-Bulman and Frieze (1983) discuss three assumptions that change as a result of victimization. These are: "1) the belief in personal invulnerability; 2) the perception of the world as meaningful; 3) the view of self as positive" (p.3). Ordinarily "illusion of invulnerability" protects us from anxiety and stress and allows us to live life with some measure of stability.

Therefore it is entirely possible that those who felt least vulnerable before the experience have the most difficulty coping after the fact (Perloff,1983). When "It can't happen to me" changes to "It did happen to me" the victim feels a sense of helplessness and apprehension and this new perception may be paralyzing (Janoff-Bulman & Frieze,1983).

Similarly, the world "makes sense" because we construct social theories that account for specific occurrences. This frames the causal attribution - sense of control relationship described by Heath (1984) and outlined above. Since we tend to believe that if we are sufficiently cautious we will prevent misfortune, victimization is particularly distressing for someone who has taken particular care to take precautionary self-protective measures (Perloff,1983). The woman who isolates herself from risky activities only to have her attacker break into her home, is an example.

There is a tendency to think that we get what we deserve so a positive view of self is important if one is to deal confidently with everyday life. The victim feels 'singled out', somehow different from others and therefore deviant. It is a short step from "Why did this happen?" to "Why did this happen TO ME?" and so we arrive at the shattering of the third assumption. The victim thinks "I

got bad experiences -- so I am a bad person." This a personal version of the general tendency to "blame the victim" discussed by Perloff (1983). She notes that "By blaming or derogating victims, observers are able to preserve their belief that they will not be vulnerable to a similar plight" (p.45). This also links with the process of causal attribution as described by Heath and may entail some measure of self-blame. Janoff-Bulman & Frieze (1983) point out that behavioral self-blame may be constructive if the victim sees that a change in behavior will offer protection in the future. However, characterological self-blame is maladaptive because the victim cannot easily make the changes required for future protection. In any case, Riger (1981) notes how devasting it is for the victim who also suffers blame from others for her victimization instead of receiving psychological and social support.

Consequences of victimization may be especially troublesome to the elderly victim because of the generally greater difficulties with daily life that come with age and physical deterioration. The elderly simply do not have the energy or psychological resources to cope easily with either physical attack or loss of property. Norton and Courlander (1982) note that as individuals age, physical resources diminish so that the elderly are

particularly disadvantaged when faced with personal attack. While less likely to be attacked, they are more likely to suffer injury which may mean a long recuperation, if indeed full recovery is ever achieved. Financial recovery may be nearly as difficult as physical recovery for the elderly are most likely to be on a fixed income and cannot easily replace lost items particularly if they are momentoes that are irreplaceable in sentimental value.

For women the fear of crime may well be the fear of rape (Warr,1984). Kennedy and Silverman (1984) would agree for they note that sexual crimes are not only violent. They also include the potential for psychological damage to the victims. Victimization, even the threat of it, has far reaching consequences for women's lives (Riger, et.al., 1982).

The physical consequences of a violent attack appear to differ depending upon the relationship between the victim and the offender (Heller, et.al., 1983). Heller, et.al., indicate that a close, personal relationship between offender and victim is related to heightened brutality and therefore to greater severity of victim injury. They cite several studies which indicate that violent crimes tend more often to occur between people who share a close relationship. This would tend to

confirm Bowker's (1979) statement reported above that women, in particular, are more likely to be attacked at home than in the street.

External wounds are at least visible and more easily treated than the grievous emotional trauma. As Siegel notes, crime victims are often shocked by the depth and severity of their reactions to the violation they have suffered. "Everything reinforces feelings of inadequacy and impotence: doctors dominate, lawyers and judges dictate, creditors agitate, and the victim suffers helplessly" (p.1271), he says. To add insult to the injury the victim sees an attacker who is fed, housed, given aid of all imagineable types, even educated, while the victim must struggle alone with the practical and emotional consequences of the experience (Siegel,1983).

Personal History:

This component places the emphasis on personal experience as a victim. No particular distinction is made between being a victim of property crime or personal crime victimization. However, it is generally considered that the effects of a personal attack are likely to be more profound than any loss of property.

While the consequences of personal victimization

vary from person to person, from one situation to another, researchers frequently do not have details of the experience available and simply link the component dicotomously with some particular attitude: "Have you been a victim or not?" and "How do you feel about.....?" This makes for large gaps in the analysis for there may also be no recognition of the types of treatment, social support, or other coping methods that may have been available to the victim during the recovery period. This methodological problem is another likely reason for the seemingly vague or uncertain relationship between victimization and fear of crime reported above!

Vicarious Experience:

It is clear to researchers that one does not have to be personally victimized or to witness a crime in order to be affected in some way (Bowker,1979; Coates & Winston,1983; Giles-Sims,1984; Heller et.al., 1983; Janoff-Bulman & Frieze,1983; Miethe & Lee,1984; Morgan,1983; Perloff,1983; Ruback et.al., 1984; Skogan,1982; Smith,1983; Stafford & Galle,1984; Wakshlag et.al., 1983; Warr & Stafford,1983; Warr,1984; Widom & Maxfield,1984; Wiltz,1982). Often, one gains knowledge of crime simply from neighbourhood discussions

and it is ironic that this sharing of information can increase fear levels (Norton & Courlander,1982; Roberts, et.al., 1984). Roberts, et.al. suggests that this increase in fear levels occurs through the mechanisms of classical conditioning (linking of the neighbourhood with some negative occurrence) and taking the role of the other (if it "happened to her" it can "happen to me").

The consequences of having a neighbour, friend or loved one victimized are varied and likely are crime specific. It is one thing to have your neighbour's car stolen and quite another to have one's own wife, daughter, sister or mother raped, for instance. In any case, the effects of having a close personal associate criminally victimized are likely to be profound and it seems reasonable that the vicarious victims suffer many of the psychological upheavals that are described above. And, as members of the victim's support network, there may be practical consequences where those close to a victim may be seriously inconvenienced, as well (Ruback, et.al., 1984).

A less personal type of vicarious victimization experience occurs when one is informed via the mass media about the occurrence of various crimes. A considerable body of work exists which describes the effect of media reports, dramatizations, and the like upon the fear levels

of those who are exposed to the coverage. A more detailed report of these findings can be found below in the discussion of the Cognitive Model.

Coping Methods and Recovery:

Some of the processes that a victim must endure as a result of their victimization have been described: shattered assumptions, physical injury, grief over the loss of irreplaceable and valuable property, etc. The effects of this psychological upheaval should not be underestimated, even as they may be linked with less serious or less devastating incidents. The victim must try to reestablish some sense of equilibrium, to rebuild the shattered assumptions of the world as meaningful and of self as invulnerable and positive.

According to Janoff-Bulman and Frieze, (1983) a number of processes occur during the recovery period. The victim may redefine the event via the "downward comparison" process by comparing self with others who are even less fortunate or by comparing what was experienced with what might have been much worse. A victim may try to "make sense" of the event by trying to find some purpose in it, by making causal attributions either to behavioral errors or to some other circumstance.

Coates and Winston (1983) note that one of the most difficult parts of the victimization experience is the lack of opportunity for the victim to "validate" feelings by comparing them with the feelings of similarly afflicted others. Without this process of social comparison victims must use broad, vague cultural norms and/or the reactions of unafflicted others as their basis of identification. Coates and Winston (1983) suggest that this might not be very helpful for the victim is almost certain to feel abnormal and undesireable in comparison. They cite several studies that have shown that "the more concerned people are about presenting themselves in a proper and socially desireable way, the less likely they are to admit to feeling unhappy..." (p.173).

Those who depend upon their social network to provide a comparative base may have mixed results. If the friends acknowledge the appropriateness of the victim's feelings, they may "normalize" the victim's sense of self, according to Coates and Winston. However, attempts to reduce the victim's distress by suggesting that the victim should not dwell on sorrow or that things may not be as bad as they seem, may only feed the victim's suspicions of his/her own deviance, especially if these messages are accompanied by fewer smiles and obvious distress about the victim's feelings and so on.

A possible solution to these problems is membership in a peer support group. However, Coates anad Winston caution that this experience is not fail-safe: communication may never go beyond the superficial level so that intense feelings are never displayed and the victim is left feeling that even compared to other victims, their own feelings are too intense, too depressed; because the reactions to victimization are so varied, the victim may feel that other members are coping so much better than they are themselves; or they may come to see the group itself as a deviant subculture and therefore see themselves, as members, as confirmed deviants. Clearly membership in a peer support group is not a panacea, but Coates and Winston do report that generally attendance at such groups does help most victims. At the very least group membership appears to do little harm. They conclude their discourse with the note that it is important to find how victims can help each other more effectively and with greater consistency.

Perhaps one of the most important points for recovering victims to remember is that there is a big difference between responsibility for the problem and responsibility for the solution (Janoff-Bulman & Frieze,1983).

Summarizing the Model:

The Victimization Model, then, is one that concentrates on a particular type of experience. Though we have implied above that the truncation of perspective may limit the ability of a model to contribute information, the victimization model also provides an example of the value of isolating some social experience for intense study. This focus allows us to see how ongoing life circumstances may change or mold attitudes, opinions and feelings.

The spectrum of the Victimization Model is such that it is difficult to portray graphically within the taxonomic structure adopted here. Personal and vicarious experience and knowledge of crime are linked to both education and to socialization. The consequences of victimization and the coping processes cause the victim to draw on the basic abilities for concept formation as the world is restructured and made meaningful again. The coping process is also linked to social influence and social support.

Though we have elaborated some of the basic variables, we have not added any further components to the taxonomic structure as it was illustrated in Figure 9. It should be clear, however, that the processes surrounding

the experience are far too complicated to be treated merely as a dicotomous variable as is the unfortunate but common case.

There is one final model to be examined. Like Victimization, the Cognitive Model is really a sub-model of the Social Psychological Model. However, though the information required is still subjective, the emphasis is on intellectual processes like attitudes, perceptions of the world and so on rather than on emotional upheavals.

Cognitive Model

Measures of Vulnerability
Perceptions of Environment
Knowlege of Crime
Summarizing the Model

The Cognitive Model views the human animal as basically a rational creature which responds to factors in the physical and social environment on the basis of known information. Hence, in the context of the study of the fear of crime, the expression of various fear levels is a logical response to knowledge of crime and crime related incidents and/or to one's own perceived competence or ability to control a situation (Eve & Eve,1984; Giles-Sims,1984). In other words, fear is a logical response to perceived risk (Baumer 1983, Skogan &

Maxfield,1981).

Some of the problems that exist with measuring fear in terms of perceived risk have already been outlined. Even given these difficulties, the Cognitive Model can add to our knowledge of fear of crime if we place the findings into proper context. In other words, it is logical that knowledge of or experience with crime and crime related activities must have some effect on the respondent's perceptions and estimates of his/her own safety. Similarly, it is reasonable that these perceptions must affect emotional responses like fear and attitudinal responses like concern. It is the kind and degree of affect that must be carefully evaluated whenever this model is used.

There are three basic components to the model:

Measures of Vulnerability:

The individual characteristics which are particularly pertinent to measurement of vulnerability are age, gender, and income. (Race is an important variable in the United States but no equivalent association between race and fear or victimization are available for Canada.) The focus here is the effect of age and gender on one's physical ability to defend oneself, the effect of income

in being able to choose safe living accommodations and transport, and the effect of race as it may link to income and to potential assault rates. Age and gender are most consistently associated with the fear of crime (Clarke,1982; Clarke et.al., 1985; Eve & Eve,1984; Giles-Sims,1984; Jeffords,1983; Kennedy & Silverman,1984; Lampe,1982; Lee,1982a & 1982b; Normoyle & Lavrakas,1984; Norton & Courlander,1982; Riger et.al., 1978,1982, Toseland,1982; Warr,1984,1985; Widom & Maxfield,1984; Wiltz,1982; and Yin,1982). However, these associations appear to be somewhat situation specific so that, as Baumer (1983) says, the area is "fraught with contingent relationships". For instance, Maxfield (1983) found that in high crime areas, the elderly were no more afraid than other residents. Women, on the other hand, are more likely to single out specific crimes. As noted above, Warr (1984) suggests that for women the fear of crime is really the fear of rape and that, in spite of findings to the contrary, women are no more fearful than other groups when other crimes are considered. Braithwaite, et.al. (1982) would agree although they frame their comments differently: "It may be that even though women are less likely to be victims of most types of crime, the few crimes of which they are disproportionately the victims are crimes which are

inordinately fear provoking. This is especially true of rape" (p.222).

This perspective echos the ecological concept of the ability to compete for more attractive locations but the emphasis is on personal ability to defend self and property or to avoid or decrease exposure to risk. Skogan & Maxfield (1981) indeed suggest that these four measures -- age, gender, income and race, fall into two groups: physical vulnerability as expressed in powerlessness to resist attack and social vulnerability which involves daily exposure to threat of victimization complete with limited means for coping with the economic consequences of the experience. Age and sex belong to the first group while income and race make up the second component.

Strictly speaking, no further measures of social vulnerability are included in the model as Skogan and Maxfield originally envisioned it. However a second part to the measurement of social vulnerability should be included. Exposure to risk through daily activities as outlined in the Routine Lifestyle Model is a form of social vulnerability that would elaborate and contribute to the cognitive model.

Perceptions of Environment:

This component attends to social support, signs of incivility, and perceptions of risk(Baumer,1983).

Social cohesion or integration as it is interpreted in the Cognitive Model overlaps the Social Support Model except that the focus here is on neighbourhood relationships and does not extend to social relationships outside that context. The effect of social cohesion within a neighbourhood on the fear of crime is somewhat vague however. Some argue that fear impedes social cohesion because residents are fearful of their neighbours, other authors suggest that fear may result in a "banding together" of neighbours in an effort to protect themselves. In other words, social cohesion might be a consequence of fear (Conklin,1975; Yin,1980).

The signs of incivility which are of interest in the Cognitive Model are basically the same as those used in the Environmental Model. Although it has not been measured, it is possible that even given identical victimization rates, crime will be considered as a bigger problem in a neighbourhood where loitering and unkempt buildings are the norm. Some researchers operationalize this subsection in terms of respondent's perceptions of the comparative dangerousness of their neighbourhood

(Baumer,1983) thus taking advantage of the principle of downward comparison discussed in the Social Psychological Model.

The term "perceived risk" as it is used in the Cognitive Model, may be measured subjectively in terms of individual perceptions according to Baumer (1983). He used respondents' estimates of the likelihood that they would be "attacked or robbed within the next year". He also suggests that an objective measure of fear is the local crime rate (an overlap with the Structural Model). Skogan and Maxfield (1981) refine this measure somewhat by viewing perceived risk via the respondent's perception of the seriousness of local crime rates and of the chances of personal victimization. Note that this is not the same thing as drawing on actual reported crimes.

Knowlege of Crime:

This component is, quite simply, the Victimization Model. The variables that are included are personal experiences, vicarious victimizations through neighbours and friends , and knowledge of crime (Baumer,1983) and of available protection as received via media reports. Note that the Cognitive Model tends to emphasize knowledge of crime as an intellectual experience

rather than the more emotional personal and vicarious experiences discussed above.

However, knowledge of crime as it is received through the media may be distorted for the crimes that are most interesting are also the most unusual so their increased media attention is disproportionate to their actual level of occurrence. However, Warr (1980) found that perceptions of crime occurrences were only slightly distorted with overestimates of uncommon crimes, underestimates of common occurrences. In other words, the accuracy of public beliefs about criminal activities was suprising.

However, the effects of media reports and portrayals may vary considerably from a dispassionate newspaper account of a change in official crime rates to a vibrant, sensational television review that brings a tragic event repeatedly right into the living room. One wonders if graphic portrayals, in particular may be a form, albeit impersonal, of vicarious victimization and if their effect may be similar to that or to witnessing a crime. Even under low risk lifestyle circumstances, it may be difficult for viewers not to think 'it could happen to me'.

There has been a large body of work done on the effects of the media (Creechan,1984; Heath,1984, Kaminski

et.al., 1983; Lavrakas,1984; Morgan,1983; Sacco,1981,1982; Wakshlag et.al., 1983) but the field is plagued by theoretical inconsistency. A further problem with the study of media effects is that some of these effects may be as a result of long term saturation and therefore not detectable without longitudinal data (Creechan, unpublished). Experiments done under carefully controlled conditions do seem to indicate that there is some definite media effect, particularly on the perceptions and attitudes of children. However, whether effects that are observed under controlled laboratory conditions can be extrapolated to the real world with all its intervening variables is another question. In fact, one might suspect that the effects of the general media are so subtle that even given the most finely honed methodology, that definite statements could not be made. That does not mean that the media has no effect -- merely that testing media effects is an extremely complex undertaking.

The effect of televised crime dramas on viewers appears to vary. Apparently those viewers who are more apprehensive about victimization react more strongly to crime drama than their calmer counterparts but they did not react more strongly to non-dramatic content (Wakshlag, et.al., 1983).

Morgan (1983) investigated the effects of television drama as follows: First a content analysis showing who becomes engaged in violence and the outcome of the encounter was prepared. Both the perpetrator and the victim were assigned to some identifiable social group by race, sex, age, social class, marital status and the like. The portrayals of these violent encounters tend to be stable over time with certain groups more likely to be instigators of violence, other groups more likely portrayed as victims. Morgan's interest was in the effect of seeing one's television counterpart repeatedly victimized. He found "In short, viewers who see their fictional counterparts more often as victims than as victors are the ones who show the strongest links between how much they watch television and the tendency to overestimate their chances of involvement in violence." In other words, seeing characters like oneself consistently portrayed as "on the bottom of the symbolic power hierarchy" (p.156) is likely to have the effect of raising fear levels, especially as the amount of time watching television increases.

Though Morgan does not discuss the broader implications of his findings one wonders about two points. Will seeing one's counterpart as consistently victorious predipose one to instigate violence, confident of winning

the encounter? Secondly, what about those fearful people who isolate themselves as a precautionary strategy -- is it not possible that they may watch more television than average and thus subject themselves to even more fear-provoking experiences?

Creechan, in a particularly unique set of circumstances, was able to test the effects of media crime reports that appeared during the collection of data for the 1979 Edmonton Area Survey. He states "there is an effect of newspapers on the public image of crime if there are sufficient reinforcements of the message. The effect is not strong but it is detectable" (p.28). This is compatible with the reasoning underlying advertising and it is reasonable that the effect can be put to positive use. As a source of information and influence over attitudes and perceptions, the media should be able to play a positive role in helping to alieviate the problem of fear of crime.

There are at least three requirements for a successful campaign. Sacco and Silverman (1981) note that large numbers must be exposed to the message, that the message must be salient and meaningful to the audience, and that the campaign result in changed behaviors of the members of the audience. Although Sacco (1982; with Silverman,1981) is unable to report any significant

findings in support of a direct causal relationship between media consumption and perceptions of crime, there are some interesting applications described elsewhere.

One program where the media has been effective in fighting crime itself is the Crimestoppers program which has the cooperation of all major media outlets in Edmonton. Information on various unsolved cases is presented in dramatic form and the public is asked to come forward with any pertinent information. All reports to date indicate that far more crimes are being solved than police would have otherwise expected. A similar program, the Crime Line in operation in Texas, is described by Schaefer and Nicholls (1983). This approach to fighting crime is increasingly popular both with the police and with the public.

An experiment conducted in Evanston, Illinois (Kaminsky, et.al., 1983; Lavrakas, et.al., 1984) entailed the distribution of a newsletter which informed residents about crime, criminal activities in their neighbourhoods, and about precautionary measures that they might employ. This program was part of an overall effort of the Evanston police to make the residents feel more secure. One version of the letter did not contain specific information about criminal activities, however. This was done to test the theory that having information about crime might

create fear, that being aware of criminal activities meant being fearful. Results of the study did not support this hypothesis and distribution of the complete version of the newsletter has since been incorporated into the Evanston police budget. The authors caution, however, that it is important to note that the release of information about criminal activities was not done "in a vacuum" but in conjunction with crime prevention information which provided specific modes of response to crime. The residents were given that important sense of competence and control.

This experiment suggests that there is the opportunity for newpapers in every locality to provide a very real service. It seems that there should be no need for some separate program requiring special funding and the like when the local newspaper could disseminate both the information about crime and the precautionary measures, appropriate modes of response, etc. to a large portion of the population. Certainly such a service fits within their mandate of providing both news and information.

Summarizing the Model:

In review, then, it seems that the Cognitive Model could indeed cover all of the research areas discussed herein if it is modified as we have suggested. In its measures of vulnerability are some indicators from the modified Structural Model. Inclusion of the Routine Lifestyle Model could add to the validity of the social vulnerability measures. Perceptions of local environment are from the Environmental Model and the Social Psychological Model. Parts of the Social Support Model are incorporated as is a version of the Victimization Model which has particular emphasis upon media effects, training programs and the like.

However, though the Cognitive Model seems to be comprehensive in just the way we suggest is necessary it still must be noted that it selects only parts of each model and until each component is throughly analysed in comparison with the combined model, there is no way to be sure that the emphasis has been correctly assigned.

D. The Taxonomic Structure:

This review of models used by social researchers in the study of the fear of crime shows both striking differences and equally striking commonalities. The differing requirements for objective and subjective information have provided the organizing structure of this discussion. However, contrasting needs for information are not the only differences between the models. Another distinction between the models is associated with the degree of their interest in the individual. The range varies from total disinterest as specified in the classic ecological Structural Model to concentration on the individual in the Psychological Models. Similar contrasts can be found in the ways that the models address the problem of crime and of fear of crime. The Structural Model attends to formal police reports while the Victimization Model includes all criminal incidents as respondents report knowledge or experience of them. For the social psychologist, crime and fear of crime are simply other social phenomena which affect the psychological status of the individual. The importance of social interaction also varies between the models. Social interaction is merely implied, a background process, in the Structural Model while the Social Support and Routine

Lifestyle Models are particularly interested in this aspect of human life.

There are overlapping areas of interest as well. The demographic information developed in the modification of the Structural Model provides a vital and objective foundation for every model examined except the Environmental Model. Without these data, researchers would have no way of knowing who they are talking about, no way of identifying groups and individuals for further study. Perceptions of physical environment are another example of a common interest as shared by the Cognitive Model and the Environmental Model. The psychological processes of concept formation, socialization, and social influence and comparison are pertinent to each of the behavioral and psychological models discussed. However, the effects of these processes are sometimes subtle and difficult to operationalize so they rarely are directly addressed in a questionnaire.

The taxonomic structure that has been built appears to be complete. However, there are at least three critical items missing. Reference has been made, in passing, to the importance of feelings of competence and ability to control situations as an important mediating factor in association with fear of crime (Eve & Eve,1984).

However, with the exception of the referenced research, very little attention has been given to the potential contribution of this variable beyond some suggestion that this sense of competence (or powerlessness) develops in particular association with the socialization of sex roles. But it is also noted that socialization is a life-long process as are the other processes outlined. Therefore, even if feelings of competence have not been instilled at an early age, it is conceivable that later experience, career success, income security, and the like may allow the feelings to develop. Hence it seems reasonable that this particular psychological factor should be included in the final taxonomy.

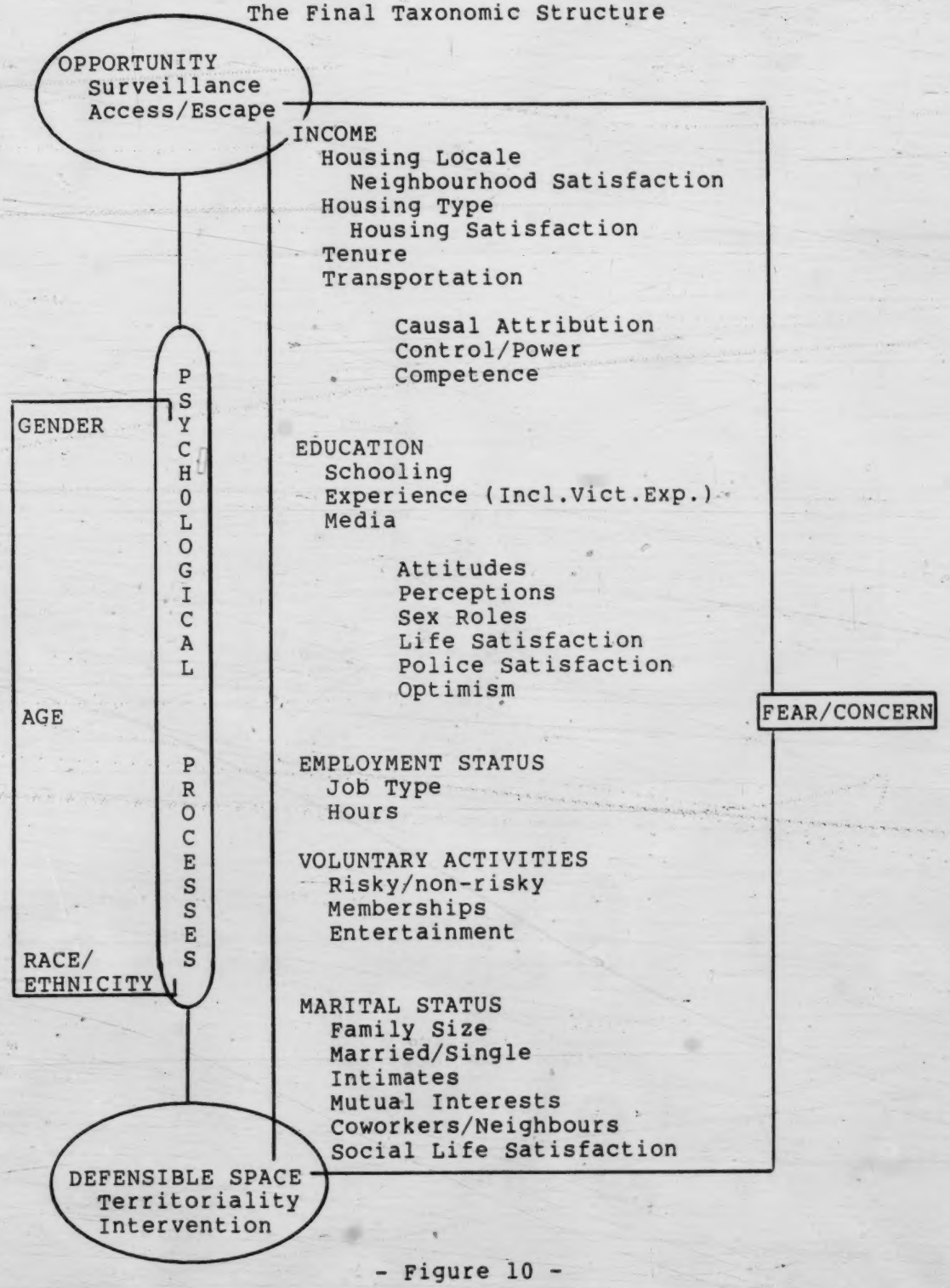
Two other components that have not been widely explored in the literature are the effect of life satisfaction and the effect of optimism for the future. They might be linked to the competence component outlined above for it seems likely that, if one is generally satisfied with work, family, and social life, that certain feelings of security and of competence should exist. Similarly, optimism should also generate feelings of security, perhaps via knowing that there will be sufficient income or at the very least that one is likely to be able to maintain current standards. These feelings should at least mediate feelings of fear (Eve & Eve,1984).

The process should be similar to that described for the mediating effect of the social network (Yin,1982) wherein general satisfaction, feelings of competence and optimism cannot reduce fear but mediate its effect. Conversely, one cannot imagine a person who is plagued by fear or feelings of powerlessness expressing a great deal of satisfaction with life or hope for the future.

Religiousity is another measure which might reflect satisfaction with life and optimism. However, though religious people frequently express feelings of security and serenity and credit their religious affiliations as the source, it is conceivable that people who have no such affiliations may also have these feelings. If the measure was taken only in terms of religiousity, the latter group would be missed.

In any case, it is proposed that optimism, life satisfaction and feelings of competence are variables that must be added to the taxonomic structure and this has been illustrated in Figure 10.

The Final Taxonomic Structure



- Figure 10 -

E. Comparing the Models:

Comparison of the models is most simply achieved by noting the variables that are pertinent to each one. Figure 11 charts these variables but does not include the various indicators which would be used to create indices or otherwise contribute to the effect.

The chart reveals that the basic demographic variables seen in the modified Structural Model are indeed pertinent to every model excepting the Environmental Model. The Environmental Model, on the other hand, is the only perspective which attends to actual physical factors which might alter behavior. Justification for this apparently deliberate truncation must rest in the point that humans react to what they perceive and not to what is "real" or "true". Therefore information about actual physical factors may add little unless one is studying perception itself. Whether or not this justification is acceptable, a major data gathering tool of the social scientist is the questionnaire rather than on-site surveys and it is entirely likely that physical factors will continue to get short shrift beyond notation of house type and location.

Variables Used in the Models

Variables:	Str.	Env.	R.L.	S.S.	S.P.	Vict.	Cog.
Gender	x		x	x	x	x	x
Age	x		x	x	x	x	x
Race/Ethn	x		x	x	x	x	x
Income	x		x	x	x	x	x
Employment	x		x	x	x	x	x
Education	x		x	x	x	x	x
Marital Status	x		x	x	x	x	x
Social Network			x	x	x	x	x
Voluntary Activities			x	x			
Social Influence		x	x	x	x	x	x
Intervention		x		x	x	x	x
Attitudes		x			x	x	x
Perceptions		x			x	x	x
Physical Design		x					

- Figure 11 -

In review, the varying need for the two basic kinds of information has resulted in three basic model types -- objective models, subjective models, and those using some combination of objective and sujective data.

These three model types collect demographic information, environmental information, behavioral data, experience tables and perceptual material.

Although, in the progression from left to right through the taxonomy and through the chart above, the additional components appear to build on those that have gone before them, it is interesting to note that the variables that are of interest to each perspective remain basically the same. It is the perspective or approach towards using the variables and to interpreting their potential meanings and explanatory values which changes even though the variables themselves do not. However, this discussion of the models and of the kinds of information which is pertinent to each has allowed us not only to build a taxonomic structure but to construct a holistic new model.

F. The Comprehensive Model:

As they have been outlined above, the models present a convincing argument that the study of the fear of crime is necessarily multidimensional. Objective demographic indicators tell us who is afraid but they cannot explain why nor can they identify mediating

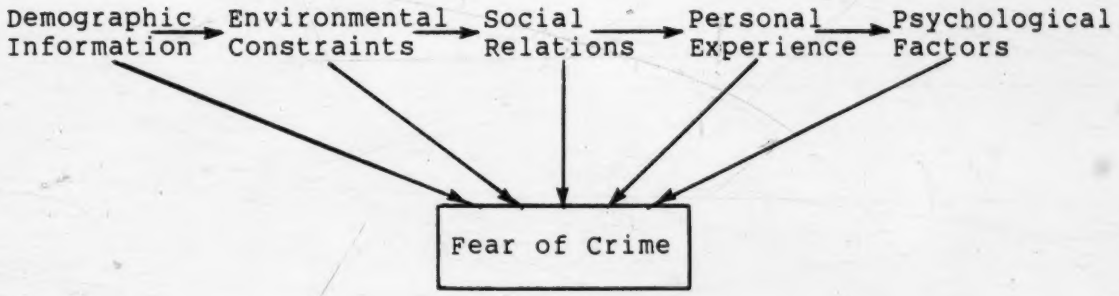
factors. Subjective psychological indicators can associate certain attitudes and perceptions with fear of crime but in isolation from the demographic information these are not necessarily any more explanatory than isolated objective data. Social interaction appears to mediate fear but it may be that those personalities who are not predisposed to fear may also be more outgoing, more likely to build a satisfying social network and lifestyle. And how does coping with everyday life affect any of these factors? What about the experience of victimization?

Each of the models used alone, is incomplete but each approach makes a unique and critical contribution to the overall body of information. The components that form the foundation for the comprehensive model must be drawn from the information bases which have developed out of the varying requirements for objective and/or subjective information: ecological/demographic, environmental, behavioral, experiential, and psychological. Demographic data as portrayed in the modified Structural model will represent the ecological persepective. As has been the case with many studies, specific environmental information beyond house type and location is not available so the environmental perspective must be operationalized via the perceptions of the environment expressed by respondents.

The behavioral component will be represented through aspects of the social network and routine daily life. Social Psychology will be operationalized in terms of the victimization experience and the effects of the psychological processes as measured by attitudes, perceptions, and the like. The sixth component in the model is the dependent variable: fear of crime.

The comprehensive model has a sound foundation in the three most basic variables found in the structural component: no social processes or environmental effects can change age, gender, or race/ethnicity. Though the physical environment changes over time, humans must first cope with the environmental opportunities and barriers as they are perceived before moving on to complex social relationships. Finally, even though the psychological processes have been portrayed here as innate abilities, they play a mediating role throughout life as the human organism copes with the world and with other humans. Hence the basic chain of the new model is as follows:

The Major Concepts



- Figure 12 -

This illustration implies that the effects are non-recursive, that psychological factors, for instance, have no effect on social experience. This, of course, is not entirely accurate, for certain attitudes, perceptions, and the like may govern the choice of peer group, lead one into a particular profession, or affect other perceptions of the social and physical environment. However, the basic ordering of the functions is indeed as illustrated. By employing this framework and by utilizing the equivalent variables as they have been placed on the taxonomic structure, we can begin to test the proposal that as a model becomes more and more comprehensive or complete it also becomes more and more informative.

III.OPERATIONALIZATION, DATA SOURCES AND METHODS

A. Operationalizing the Model

- Dependent Variables
- Control Variables
- Independent Variables
- Intervening Variables
- The Comprehensive Model

B. Where the Data are Available

- Edmonton Area Study
- Sample Design

C. Techniques Used in the Analysis

A. Operationalizing the Model:

In review, a theory is a propositional statement which specifies relationships between the elements of interest, the relative importance of the various elements within the proposed system, and the conditions under which it is thought that the relationships can exist. As the general theory becomes more and more particular the researcher is able to construct a model, a more specific representation of the concepts outlined by the theory. This model is useful in that it not only designates the variables (which are derived from the elements outlined in the theory) but it illustrates the proposed relationships. Further, a variable is a characteristic or attribute that can take on more than one value over the members of a sample. It can be measured by using one or more indicators and it can be judged on a qualitative as well as quantitative basis. In other words, a variable can be measured but it can also be judged as to its validity as a representation of the theoretical concepts.

This operationalization process moves us, then, from the theoretical concepts to the variables which represent them and on to the actual, specific indicators which will be used in measurement. For instance, one important component in our work is the concept "Fear of

Crime". Variables within that concept are "fear of personal victimization" and "fear of property victimization". More specifically, indicators of fear of personal victimization might be self-isolation or the taking of other unusual precautions. Indicators for "fear of property victimization" could include the use of special locks, window grills, staying home to 'guard' property, and so on. Because single measures or single indicators of a variable may allow spurious associations to appear, it is preferable to use multiple measures wherever possible. For instance, locking the front door to one's house while in the back yard may reflect only that one wants to keep neighbours' children from entering uninvited. Installing special locks, AND window grills, AND staying home to 'guard' reflects something quite different. However, particular care must be taken if several indicators are to be combined to form an index for the mixing of indicators that have little or no theoretical links will serve to destroy the validity of the index. For instance, combining indicators of fear of property crime with those indicating fear of personal victimization may seriously distort the findings.

Dependent Variables:

The dependent variable is the characteristic which has been affected. Its value is influenced or determined by the scores or values of the independent and/or intervening variables. Put another way, knowing the value of an independent variable will allow us to predict a value for the dependent variable. For example, we might propose that fear levels are likely to be higher for those people who have been recently victimized. Therefore, knowing whether or not someone has been victimized allows us to predict how frightened they might be. The dependent variable is that property or social phenomena which we seek to better understand or explain: in this case, "Fear of Crime".

There is an ongoing debate as to what constitutes a valid, reliable measure of fear. Further, there is some concern as to how best to collect information about fear of crime. For instance, one problem with some of the work referenced herein is that many respondents appear to have been "cued" by question wording or even by the survey name (ie., the National Crime Survey, the British Crime Survey, etc.). This prompting leads the respondents to think in terms of being fearful of potential criminal

victimization. Hence some studies may simply be a form of self-fulfilling prophecy.

The most commonly used measure of fear of crime seems to be a single indicator: whether there is anywhere in the neighbourhood where the respondent would be afraid to walk alone at night. We have already suggested that the use of a single indicator to measure any social phenomena may be problematic. It is tantamount to measuring IQ by the respondent's ability to answer a single question. Consider the difficulties that would occur in choosing just which question should be used!

Further, the use of a single indicator may mean that important information is ignored. For instance, measuring fear solely in terms of the respondent's perception of safety in the neighbourhood overlooks the mobility of most North American urbanites. Jeffords (1983) addresses this point: "As the vast majority of most people's time is undoubtedly not spent out alone in one's neighbourhood, the content validity of using only items measuring this aspect seem questionable" (p.104). In any case, the question fails to get information as to why the respondent is afraid: a large dog, a fear of the dark, or some other phobia might explain the respondent's expressed fear. Individuals may indicate high fear levels

on this measure because of a pervasive sense of anxiety or vulnerability (Lee,1982). Or, as Miethe & Lee (1984) suggest, the measure may be more closely related to perceived vulnerability or perceived safety of one's neighbourhood rather than a general anxiety about crime. Finally, this indicator gives no information as to the particular criminal offences which respondents fear (Warr and Stafford,1983). And, as Skogan and Maxfield (1981) note, the problem of fear of property crime is entirely neglected.

This question cues the answer simply by using the word "afraid" and it may, in reality, confound fear with self-imposed isolation (Lee,1982). Further, the socialization of North American men is such that few could easily admit to being afraid for their own safety, to admit uncertainty as to their ability to take care of themselves. (They might, however, concede to being fearful for the safety of their female loved ones.) In other words, the respondent's sense of competence, sense of ability to control the situation may mediate fear levels (Eve & Eve,1984; Giles-Sims,1984). Similarly, faith in the efficacy of available police protection may allay fear. In this case a personal sense of competence is given over to the feeling that the situation is under control even if not by one's own hand.

Skogan and Maxfield (1981) defend the use of the question by saying that it poses a situation-specific stimulus component which at least implies specific kinds of risks and potential consequences. Though one might try to argue that 'implication' is not enough, there is one important fact to remember: Given these concerns and qualifications as to the validity of using fear of walking alone at night in one's neighbourhood, it cannot be denied that in repeated tests, it has been found to be the most powerful indicator of fear of crime as it is associated with the other components of the model in use. In other words, IT WORKS! Therefore, the continued use of the indicator seems justified.

Testing of the models here will require three indicators of fear of crime. The first indicator is the question regarding the respondent's perception of night-time safety in the neighbourhood. Although, as noted above, the value of this indicator is in dispute, as the most common indicator used in work to date it is one way to check the sample to be used here against other research. The second indicator will be an index composed of three questions concerning fear of victimization of a personal nature: "How much do you worry about the possibility that .... Someone will use a weapon to take

something from you by force; A thief will break into your home while you are home; and Someone will sexually assault you?" The third indicator of fear will consist of an index composed of three questions concerning fear of victimization of property crime: "How much do you worry about the possibility that .... A thief will break into your home while you are away; Someone will steal your coat, when you have left it somewhere unattended; and Someone will cheat or con you out of a large amount of your money?" Though the potential crimes listed vary in seriousness, it is proposed that, along with the oft tested fear in neighbourhood variable, they at least give some idea of the fear levels of the respondents as they may apply to the different kinds of crime.

Control Variables:

A control variable is a variable that is held constant in an attempt to further clarify a relationship between two other variables. For instance, having discovered a relationship between age and fear levels, we might hold gender constant to assess the patterns of age and fear in men only or in women only. It is important that the control variable be outside the causal model, that it is not actually yet another indicator.

Research done to date clearly shows that age, gender and race can indeed be considered to be strong indicators of the degree of fear that is likely to be expressed. However, controlling these same variables will remove the influence of their variation on the other variables which will enter the equation (Agresti & Agresti,1979). Gender is the only variable to be controlled in this research.

Independent Variables:

An independent variable is a causal or explanatory variable which has a determining effect (or so we are proposing) upon another variable. It acts as a predictor: if we know the value of an independent variable we can predict the value of the dependent variable. For example: if it is hypothesized that loneliness is associated with higher fear levels, then knowing the degree of loneliness gives some idea of the level of fear the respondent feels. The independent variable is also the variable by which groups are defined (Agresti & Agresti,1979).

Independent variables in the comprehensive model include the three basic "birth-package" variables: Age, Gender, and Ethnicity; and Income, Education, Employment

and Marital Status are also important demographic indicators of fear of crime according to previous research. Other objective indicators to be included in this report are House Type, Tenure, and plans to move (from the Environmental perspective), number of nights out and drinking patterns (from the routine activities model), numbers of visits with friends, neighbours, and relatives (from social support) and victimization experience. Subjective information is tapped through indices created to assess satisfaction with accommodation, perception of local environment (the incivility measures), social activities, attitudes to crime, life satisfaction and optimism and so on.

Intervening Variables:

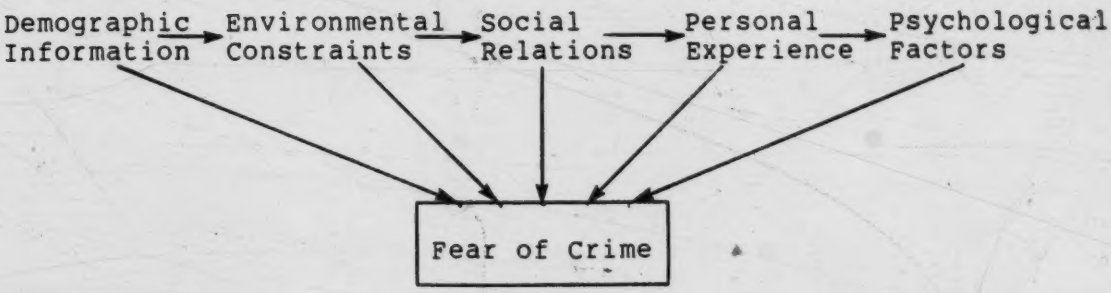
An intervening variable is both dependent and causal. In this study all variables listed as independent variables excepting Age, Gender, and Ethnicity, can be also considered to be intervening variables. For instance, it has been suggested that Income may allow one to live in a better locale, better housing, and have private transportation. As such it is likely to affect fear levels. Yet Income can be largely dependent upon Gender. As such, Income is an intervening variable. A

similar process can be described for the other variables listed.

The Comprehensive Model:

As we constructed the taxonomic structure during the review of the models last chapter, it became clear that each of the model types could make an important contribution to our knowledge of fear of crime. It was equally clear that the models as they are applied in isolation from each other may miss important information. This observation implies that reliance on only one kind of information may distort and/or truncate the findings. It seems logical that as a model becomes more comprehensive in the use of varied kinds of information it also becomes more informative. Note the distinction, however, between establishing a particular pool of information and merely using a "dragnet" technique wherein variables are examined merely because they happen to be available in the data. Though we will use more variables than is usual, remember that one purpose here is to compare the models and it is therefore important that each approach be represented. Hence the Comprehensive Model as it was conceptualized last chapter was illustrated as follows:

The Major Concepts

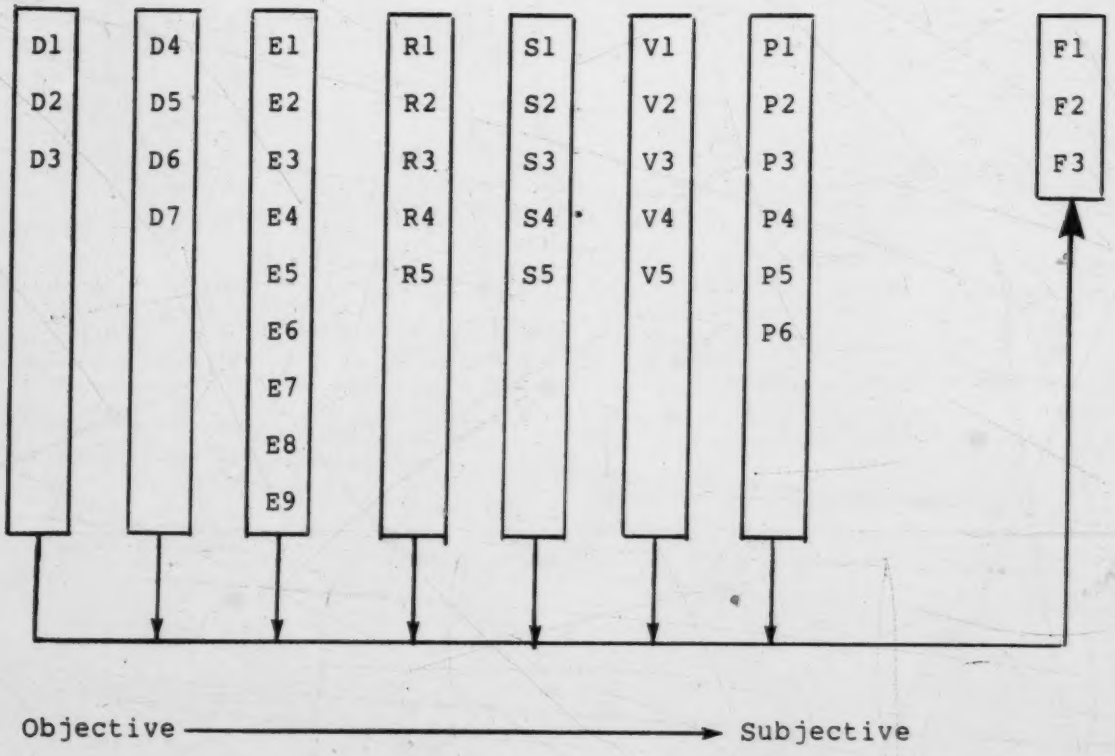


- Figure 12 -

These concepts must now be translated into the variables and indicators which must be used to test the model. As this model is portrayed, each stage will affect those that follow it but not those that precede it. In other words, the effects are non-recursive. This, of course, is not entirely true, for psychological factors will affect perceptions of environment, routine life choices, the type of social life developed and so on. However, for this examination of the fear of crime, it is proposed that each of these experiences will act as socialization processes in an additive model as shown in Figure 13.

Note also that each of the models discussed herein has been represented so that the models are, in effect, the components of the new model.

Illustrating the Comprehensive Model



- Figure 13 -

Fear Indicators
F1 Perception Of Neighbourhood Safety At Night
F2 Fear of Property Victimiation
F3 Fear of Personal Victimization

Demographic Indicators:
D1 Gender
D2 Age
D3 Race/Ethnicity
D4 Income
D5 Education
D6 Employment Status
D7 Marital Status

Environmental Indicators:
E1 House Type
E2 Tenure (Own/Rent)
E3 Physical Env. Characteristics: ie. Traffic Access
E4 Environmental Perceptions - Incivility Measures
E5 Satisfaction With Accommodation
E6 Perception of Comparative Neighbourhood Crime Rates
E7 Plans to Move
E8 Feelings of Territoriality
E9 Willingness to / Expectations of Intervention

Routine Lifestyle Indicators:
R1 Nights Out (Risky/Non-risky)
R2 Drinking Patterns (Measure of Risk)
R3 Hours of Work
R4 Travel Patterns
R5 Memberships

Social Network Indicators:
S1 Family Size - No. Adults in Household
S2 Socialize With Relatives
S3 Socialize With Friends
S4a Socialize With Neighbours
S4b No of Neighbours Known
S5 General Social Satisfaction

Victimization Indicators:
V1 Personal Victimization - Personal Crime
V2 Personal Victimization - Property Crime
V3 Vicarious Victimization - Personal Crime
V4 Vicarious Victimization - Property Crime
V5 Media Effects
V6 Punched or Beaten
V7 Threatened by a Gun or Shot at

Psychological Indicators:
P1 Attitude Toward Crime/Criminals-1
P2 Attitude Toward Crime/Criminals-2
P3 Satisfaction With Police
P4 Competence & Control - Inner Causality
P5 General Life Satisfaction
P6 Optimism

Summary:

The model as it is illustrated is detailed. It is also complicated by the use of so many variables. However, as already noted, one purpose of this review is

the testing of the models against each other and as a single unit. There is no alternative but to use as many of those variables available in the data set which best represent each of the models. Because the data was collected for reasons other than those outlined in this thesis, the variables may vary in qualitative value but that is an example of yet another operational problem: the cost of doing secondary research. Though the results must be affected by this approach, it must be remembered that these tests are never-the-less unique in that the models are being simultaneously tests on the same sample population. Hence it is not unreasonable that we may expect to get some clear idea of the most fruitful paths to be followed in future research.

B. Where the Data are Available:

Edmonton Area Study:

Since 1976, the Population Research Laboratory at the University of Alberta has conducted a yearly survey of the residents of the City of Edmonton. The City is the capital of the Province of Alberta, Canada and has a population of approximately 600,000. Because of its

proximity to many natural resources, particularly oil, the area has enjoyed a booming economy. During the late 1970's the population grew quickly with an influx of jobseekers from more depressed areas in Eastern Canada. However, the implementation of the National Energy Policy along with changes in world energy markets resulted in a serious economic downturn which became particularly evident about 1982 or 1983. The current recession eliminated many jobs so many of the recent immigrants have left the province. Evidence of the exodus is the high vacancy rates in rental accommodation and the depressed values for both residential and commercial real estate.

It might be argued that this volatile economic climate and the accompanying changes in population should show up in changes in fear levels, etc., if one subscribes to the theory that fear/concern are related to social change. However, it is our belief that the City size is such that it long ago lost the small town atmosphere where one might expect to meet friends and neighbours on the street or at the shopping center. Hence it seems reasonable to believe that the findings taken from one year might, with caution, be reasonably compared with another year as if the two pieces of work were drawn from a single sample. However, for this project, we will limit our attention to the 1984 Study.

Sample Design:

The survey instrument is administered to approximately 450 city residents (452 in 1984) during February and March. The sample is selected through a simple random sample process using municipal records. Either the husband or the wife is an eligible respondent in selected households and in non-family households, anyone over 18 is eligible. Because of a concern that women might be more easily available, interviewers are instructed to request a male first until a sufficient number are included.

C. Techniques Used in the Analysis:

The model will be operationalized through the use of demographic data and by using other variables included in the 1984 E.A.S. questionnaire to construct indices as required. There is one important factor to be considered in the analysis of this data. One problem with using the holistic approach that is advocated here is noted by Lavrakas (1982). He suggests that the differing levels of construct validity by which each predictor variable was measured may affect the outcomes. Although one might expect demographic indicators to be valid and perceptual

indicators to be less so, the problem is not so clear cut as a simple comparision between objective and subjective material. The difficulty lies in the mix, the particular way that the indices are constructed and assigned. We have tried to keep the kinds of information separate and to make the application of each index quite clear. Actual indicators used in index construction can be found in Appendix A.

Data analysis will require the use of two statistical techniques: Pearson's correlations and multiple regression. A correlation matrix including the variables as outlined above for each model will be shown for each of the three indicators of fear. These tables will show the measure of association of each of the independent variables with the individual dependent variables. Scores may range from -1 to +1 and will represent the proportion of variance in fear that can be explained by the variance in the independent variable. In other words, each indicator will be examined on an individual basis to ascertain its particular bivariate relationship with fear as we have been able to define it using available variables.

Further testing of the models occurs through the use of multiple regression wherein the models will be

added as units. In other words, we will begin with the objective demographic model and will add the models in the order which has been outlined above until the last of the subjective material has been included. In this way, the amount of additional explanatory power achieved through the use of the added information can be assessed. The logic underlying multiple regression is similar to that outlined for Pearson's correlation but this time the variance explained in the final score is that percentage of variance in fear that is explained by all of the variables in the model acting in concert.

IV. DISCUSSION OF FINDINGS:

A. Analysis of the Models

Correlation Analysis
Regression Analysis

B. Overview of the Findings

A. Analysis of the Models:

A quick review of the comprehensive model as illustrated on page 150 shows all the variables which should be included in the analysis. It also provides a listing of the models as they exist separately. Correlations for each of the models will be analyzed individually. However, the models will be added cumulatively to the multiple regression equation.

Correlation Analysis:

Tables 1 to 4 show the correlations for each of the variables as they are drawn from the 1984 EAS Survey. Significance is reported only if there is less than a 5% chance of obtaining such a result if there was no association between the independent and the dependent variables.

Whenever multiple indicants have been used to form a single index, the reliability (consistency, repeatability) of the new indicator should be verified using Cronbach's alpha. Interpretation of this figure is as follows: a score of 1.0 would represent perfect reliability, 0 represents no reliability at all. For example, the Cronbach's alpha scores for the fear indices are: FearPers = .59, FearProp = -.82. This indicates that

the FearProp index is likely to be consistent, to be unaffected by random error, and that this scale might be useful with other tests or samples. Though the FearPers index is more consistent than not, it is clear that it is not as reliable as FearProp. A score of .59 means that this index can be considered to be a reliable representation only about 60% of the time.

In review, FearProp is an index made up of three questions: "How much do you worry about the possibility that ... A thief will break into your home while you are away; Someone will steal your coat, when you have left it somewhere unattended; and Someone will cheat or con you out of a large amount of your money?" FearPers is an index made up as follows: "How much do you worry about the possibility that .... Someone will use a weapon to take something from you by force; A thief will break into your home while you are home; and Someone will sexually assault you?" FearNeigh is, of course, the standard indicator discussed earlier: "How safe do you feel or would you feel walking alone in your neighbourhood after dark?" Answers range from "Very Safe (1) to "Very Unsafe" (4).

Correlation Tables - Demographic Information

		FearNeigh	FearProp	FearPers
Demographic Indicators:				
D1	Gender	.4210	-.0001	---
D2	Age	.0762 .053	-.1181 .006	-.1692 .006
	Males	.1886 .002	-.1233 .031	---
	Females	-.0221 .048	-.1131 .048	-.1692 .006
D4	Income	-.1710 .000	-.0360	-.0614
	Males	-.1899 .003	-.0350	---
	Females	-.1359 .028	-.0353	-.0614
D5	Education	-.1316 .003	-.1411 .001	-.1273 .030
	Males	-.1816 .003	-.0697	---
	Females	-.1188 .039	-.2174 .001	-.1273 .030
D6	Employment	-.1550 .000	-.1074 .011	-.1078 .055
	Males	-.2106 .001	-.1417 .016	---
	Females	-.1655 .007	-.0645	-.1078 .055
D7	Marital	.0588	-.0215	.0520
	Males	.1497 .012	-.0435	---
	Females	-.0322	-.0102	.0520

- Table 1 -

Note that Gender has by far the strongest association with fear at least as it is measured by the standard fear out in the neighbourhood indicator, F1. This association is not carried through to the other fear indicators, however. Age, on the other hand, shows a stronger and more significant association with F2 and F3 than with F1 which tends to support the notion reported in Chapter 2 that the fear felt by the elderly tends to be situation-specific. This observation also holds for women only.

The findings for males alone show no coefficients calculated for FearPers. This will be true for males in all subsequent tables as well and occurs not so much because males are not afraid of personal crime victimization but because the question regarding fear of sexual assault was asked of women only. Hence, for males, there are too many missing cases to allow the FearPers index to inform us further and it will be dropped from the regression equations to follow. Similarly, the ethnic diversity and the multi-cultural population of the City makes meaningful coding virtually impossible so this variable has also been dropped.

However, it is noteworthy that for males only, FearNeigh is more strongly associated than it is for the general group and generally far more strongly associated

than for women only. This may explain the "success" or popularity of this indicator of fear: in other words, this indicator shows consistently strong relationships with many of the variables used by fear researchers. This notation also highlights support for the point made by Warr and others that womens' fear is far more generalized.

Next to Gender, Income has the strongest association with F1 but, like Gender, the relationship does not hold for the other two fear indicators. Education and Employment Status are significant at least to the .05 level with all three fear indicators, however. This is particularly puzzling when one considers that these three variables (Income, Education, and Employment) generally covary and are, in some sense, seen to represent similar attributes. Education, and FearProp are fairly strongly associated for females. Perhaps an educated female is simply more aware of possible dangers.

The scores for Marital Status do not bear out the expectation suggested earlier that it would have a strong association with fear levels, however. Only for males is the association significant and that might be explained by the point that while married males are more likely to live in safer, more stable neighbourhoods than single men, that they may indeed worry about the safety of their female loved ones. For women, the strongest association between

marriage and fear is with fear of personal victimization. Possibly if womens' fear is indeed generalized, married women take a safe neighbourhood somewhat for granted but still concern themselves with personal crime outside that sphere.

Analysis of the Environmental Model must be qualified by the absence of information about actual on-site conditions. Because we lack this information, the model does not receive an entirely fair test. Similarly, information about feelings of territoriality or intervention behaviors are not available from the 1984 EAS questionnaire. However, we must still recognize that residents' perceptions are valid indicators of the kinds of things which will influence their feelings so, like other researchers, we take the position that for our purposes, it is the respondent's perceptions which really count.

Correlation Tables - Environmental Information

	FearNeigh	FearProp	FearPers
Environmental Indicators:			
E1 House Type	.0642	-.0049	-.0346
Males	.0855	.0136	---
Females	.0952	-.0038	-.0346
E2 Tenure	.0777 .050	.0835 .038	.0578
Males	.1122 .045	.1026	---
Females	.1108 .050	.0647	.0578
E4 Incivility	.2509 .000	.2902 .000	.2447 .000
Males	.2334 .000	.2375	---
Females	.3008	.3409 .000	.2447
E5 Sat. With Home	-.1479 .001	-.0862 .034	-.0673
Males	-.1402 .017	-.1106 .048	---
Females	-.2282	-.0631	-.0673
E6 Rel. Cr. Rate	.2074 .000	.1101 .010	.0103
Males	.1412 .017	.1652 .006	---
Females	.2388 .000	.0618	.0103

- Table 2 -

Examination of Table 2 shows that indeed, perception of the environment shows a fairly strong correlation with all three fear indicators. This is an index made up of indicators measuring the respondent's assessment of whether or not various elements (misbehaving juveniles, people loitering, noisy neighbours, run-down buildings and houses, and drug or alcohol abuse) are problems in their neighbourhood. Commonly called "incivility measures", the Cronbach's alpha shown for this indice is .9078 - a very reliable score indeed. The association holds whether we are measuring the entire group or the genders separately. It is particularly strong for females, expecially in their perception of safety in the neighbourhood and in their fear of property crime.

Some association is also shown, not suprisingly, between F1 and perception of crime rates. Associations between house type and tenure with fear appear to be weak, although some significance has been attributed to the association between home satisfaction and F1. E5 is a two item index combining satisfaction with one's house or apartment and satisfaction with the neighbourhood as a place to life. The alpha for this index is only .48, however.

Correlation Tables — Behavioral Information

	FearNeigh	FearProp	FearPers
Routine Lifestyle Indicators:			
R1 Nights Out	-.1547 .001	-.0014	-.0579
Males	-.1165 .040	-.0486	---
Females	-.1169 .041	-.0477	-.0579
R2 Drink. Pattern	.1284 .003	-.0055	.0905
Males	.1707 .005	-.1129 .044	---
Females	.0886	.0955	.0905
Social Network Indicators:			
S1 Adults/House	-.0587	.0763 .053	-.0040
Males	-.0184	.1170 .038	---
Females	-.0502	.0364	-.0040
S2 Soc.Relatives	-.0052	-.0515	-.0949
Males	.0491	.0235	---
Females	-.0659	-.1269 .030	-.0949
S3 Soc.Friends	.0079	-.0143	.0461
Males	-.0624	.0645	---
Females	.0402	.0354	.0461
S4a Chat Neigh.	-.0103	.1793 .000	.0885
Males	-.0677	.1388 .000	---
Females	.0204	.2218 .000	.0885
S4b Know Neigh.	-.0278	-.0607	-.0867
Males	-.0663	-.0076	---
Females	-.1059 .058	-.1130 .047	-.0867
S5 Soc.Satisfact'n	-.0148	-.1293 .003	-.1678 .007
Males	-.0770	-.0737 .003	--- .007
Females	-.0714	-.1947 .002	-.1678 .007

- Table 3 -

No information about the riskiness of activities is available so no assessment about potential risk is possible beyond the notion that more nights out must mean more exposure to risk of a general nature. Information about memberships and hours of work is also unavailable. However, numbers of nights out and drinking patterns along with a full compliment of social network indicators is included in the analysis. Two measures of familiarity with neighbours are used - whether or not respondents know their neighbours has been added to the amount of time spent socializing.

Both number of nights out and drinking patterns show significant correlations with F1 which tends to lend some support to the basic tenets of the model. Similarly, there is some support for the notion that social satisfaction may mediate fear levels. However, social satisfaction is an index constructed from respondent reports of feeling in tune with people, close to family, that family and friends give moral support, and that companionship is available when it is needed. The alpha for this index is only .30 so it is relatively weak.

Perhaps the most notable finding is that, in contrast with the demographic and environmental findings, males and females tend to differ very little on any of the variables.

Correlation Tables - Subjective Information

	FearNeigh	FearProp	FearPers
Psychological Indicators:			
V1 Pers.Victim	-.0368	.1627 .000	.0318
Males	-.0923	.1724 .004	---
Females	.0453	.1532 .012	.0318
V3 Vicar.Victim	.0190	.0744 .059	.0493
Males	-.1016	.0626	---
Females	.1126 .048	.0859	.0493
P1 Sat.WithPolice	-.0039	-.0409	-.0511
Males	.0097	-.0504	---
Females	-.0867	-.0315	-.0511
P2 Get Tough	.1546 .001	.0680	.1809 .006
Males	.1987 .002	-.0040	---
Females	.1186 .050	.1493 .019	.1809 .006
P3 Get Tough, Too	.1737 .000	.1030 .018	.2105 .001
Males	.1751 .005	.0297	---
Females	.1982 .002	.1746 .006	.2105 .001
P4 Life Satisf't'n	.0091	-.1715 .002	-.2616 .001
Males	.0975	-.1099	---
Females	.0957	-.2434 .003	-.2616 .001
P5 Optimism	.0220	-.0358	.0304
Males	-.0247	-.0738	---
Females	-.0129	.0010	.0304
P6 Inner Causality	-.0185	.0515	.0759
Males	.1128	.0226	---
Females	-.0111	.0795	.0759

- Table 4 -

Table 4 shows some subjective indicators which we have discussed above. Note that in this analysis no distinction has been made between being the victim of personal or property crimes nor between those who may have received treatment and those who have not. Though this "dicotomous" approach contradicts the comments made above regarding the necessity for these distinctions, it is consistent with much of the research done to date and as we are trying to compare the models as they have been applied as well as to discuss their potential contributions, this analytic truncation is justified.

There are a number of indices used in the analysis of the psychological models. Both of the "Get Tough" indices reflect general (conservative) attitudes towards crime and criminals and whether or not sentences are too lenient, and whether or not certain police powers should be extended. There is no particular difference between the content of the two indices and they could just as well have been combined as a single unit. In any case, their respective alpha scores are .73 and .84 so they can be considered reliable.

Though the correlations between these indices and the fear indicators are not substantively significant, they are significant within the limit of at least .01. In other words, there is less than a 1% chance of getting

these correlations if there is no association between "Get Tough" attitudes and fear. This suggests that a definite association exists between more strict, more conservative attitudes about the handling of crime and criminals and fear. However, the relationship may not necessarily be causal as we imply here for it could be that the fear is the cause of the attitudes rather than the reverse.

The other index used here is Life Satisfaction, an eight-item scale assessing satisfaction with family life, non-work activity, health, friendship, standard of living, job, demands on time, and general life satisfaction. Theoretically it seemed that this should be a strong index but the alpha score is only .1295. Though the correlations for this index with both F2 and F3 are relatively strong and significant within our criteria, the low reliability of the index suggests that these findings would not likely be repeated. Hence, in the multiple regression to follow, this index will be replaced by a single question addressing life satisfaction directly.

Correlations between the other variables tend to be suprisingly low and they provide one example of the frustration researchers find when using subjective information: is the operationalization of the concepts faulty or are the associations truly weak?

Summary:

There has been at least some support for each of the models reviewed. We have the strong association of Gender with Fear and the apparent support for the notion that Fear and Age are situation specific. Clearly, perception of the environment appears to influence fear levels. Some aspects of routine daily life have significant associations with fear, suggesting that further clues might be available in a more extensive analysis. Though specific social relationships do not appear to affect fear levels, satisfaction with social life seems to play the mediating role suggested earlier and there are interesting links between attitudes and fear that beg further investigation.

Regression Analysis:

The following tables show the results for two of the three dependent variables. FearPers is discarded because of its many missing cases. The first two tables show the findings for fear in the neighbourhood and fear of property victimization for the entire group. These will be followed by tables for males only, then females only.

Multiple regression analysis allows us to see how

much variance can be explained by the indicators acting in concert. Ordinarily, the criteria in ordering entry of indicators into the equation is that the next most powerful indicator will be chosen. However, for this analysis, the indicators will be added in basically the same groups as shown in the correlation analysis. After the demographic variables (column 1), environmental variables (column 2) will be entered. These will be followed by the behavioral variables (3). Finally the psychological variables will be entered in three steps -- the experiential variables (victimization) will be entered first (4); then the variables assessing attitudes about crime, criminals, and the police (5); and finally those variables which we have suggested might provide some missing information: life satisfaction, optimism and a sense of inner causality (6). In this way, each of the models is represented in turn and the groups as they are entered gradually build the comprehensive model developed above.

As one reads from left to right, the first appearance of a coefficient is that variable's total effect. In other words, no other variables are intervening or mediating the effect. The indirect effects are "those parts of a variable's total effect which are transmitted or mediated by variables specified as

intervening between the cause and effect of interest in a model. That is, they tell us how much of a given effect occurs because the manipulation of the antecedent variable of interest leads to changes in other variables which in turn change the consequent variable" (Alwin & Hausser,1975; p.39). They are represented by the differences between the coefficients in any two adjacent columns. Column Six represents the direct effects of all the variables on the dependent variable of interest. It is "simply that part of its total effect which is not transmitted via intervening variables. It is the effect which remains when intervening variables have been held constant" (Alwin & Hauser,1975; p.39).

The variable scores may appear as either negative or positive. This sign will define whether or not fear increases in association with the variable or whether it decreases. For example, if as income rises fear also rises, we would show a positive relationship. As shown in Table 5, the relationship is negative, suggesting that as income increases, fear levels decrease. This is logical given that those who can afford to live in safe areas are less likely to be fearful in their neighbourhood. A peek ahead to Table 6 shows that the relationship is not nearly so stable, however, in the case of property crime. Affluent people have more property worth stealing so they

are more likely targets. Hence, greater income may indeed mean greater fear levels if one is discussing fear of property crime.

The positive relationship for age suggests that greater age is associated with greater fear at least as it is measured against feelings of safety in the neighbourhood. However, the relationship is reversed when fear of property victimization is examined, suggesting that this particular fear may not play an important part in the increased fear levels expressed by the elderly in other research. Gender is very clear cut: both tables show a definite relationship between being female and being fearful. Of particular interest, however, is the change in the strength of the relationship between FearNeigh and FearProp: the association with neighbourhood fear is both substantively and statistically significant, fear of property victimization is neither! This lends support to the notion that womens' fear may indeed be crime-specific.

Education seems stable for in both contexts greater education is associated with less fear. Similarly, to be employed means to be less fearful. To be married means to be generally less fearful of property victimization but more fearful within the neighbourhood. This might be because married people are usually outside

their homes with a companion (either a spouse or children) and therefore might respond to a question about walking alone with more nervousness than would ordinarily be the case.

Satisfaction with one's home is associated with less fear at least until the victimization model is added to the FearProp equation. A negative coefficient for house type suggests that those in multifamily housing have less fear than those in single family accommodation and this seems to be a stable finding except for the initial entry for fear in the neighbourhood. In other words, without considering other factors like routine activities, victimization experience, and so on, those in single family neighbourhoods are likely to have less fear. However, when other activities are included in the calculations, this relationship breaks down. This lends support to the point that people tend not to spend a lot of time within their own neighbourhoods and that measuring fear solely in terms of neighbourhood related activity might not result in an adequate examination. A positive relationship for perceived crime rates for the neighbourhood as being high, medium or low as compared to other areas, suggests quite logically that perceptions of a high rate is associated with greater fear. Like gender, the incivility measure of perceptions of the neighbourhood

is a very strong indicator of fear. The bigger the problem one sees, the greater the fear and it is noteworthy that both substantive and statistical significance exists, particularly for fear of property crime. A positive relationship for tenure shows that those who rent are more likely to be fearful and this association appears for both dependent variables.

A positive relationship for drinking patterns suggests that those who don't drink are more fearful. This association changes: for FearProp, non-drinkers are less fearful, perhaps because they may spend more time at home. However, for FearNeigh, the relationship is positive, again suggesting that the activity, in this case drinking, may not occur in the neighbourhood context and that those who are 'out and about' are more knowledgeable about their neighbourhoods and therefore less fearful. A negative relationship for more adults in the household logically suggests less fear and this appears to hold in Table 5. However, there is a puzzling reversal for fear of property crime where one might propose that more adults should mean more likelihood of responsible protection of property. However, perhaps increased numbers of adults also means increased traffic with many of these people being unknown to other household residents and therefore seen as potential threats to property. A positive

association for the socializing variables indicates that the less socializing, the more fear, thereby supporting the social network model as it was described above. Socializing with neighbours seems to mediate fear of property crime, but it apparently does little for feelings of personal safety. This does not quite fit with the finding that knowing more neighbours means less fear in the neighbourhood, however. Less socializing with relatives means less fear generally, in agreement with Kennedy and Silverman (1985) who noted that relatives may act to frequently warn the elderly and therefore may provoke greater fear. This may extend to other age groups as well. Socializing with friends may have a more positive effect for more socializing means less fear. A negative result for social satisfaction means that more satisfaction is associated with less fear and this appears in both tables.

The experience of victimization (either personal or vicarious) appears to increase fear of property crime but that does not hold for fear in the neighbourhood. Similarly, specific personal threats do not seem associated with fear of property crime, serving to support the idea that the two kinds of crime elicit different types of fear. In any case, not being beaten or threatened does mean less fear as is shown by the negative

relationships. However, victimization results are not clearcut for FearNeigh and this supports the point that all too often, victimization data does not give sufficient information as to the details of the experience.

More satisfaction with the police should mean less fear and that is borne out in the findings. The two "Get Tough" indices show that the 'tougher' the attitude, the greater the fear levels. However, the causal relationship may be that the fear causes the attitudes rather than the reverse.

Because the original index used to measure Life Satisfaction was so unreliable (Cronbach's alpha = .1295) it is measured here by a specific question: "All in all, how satisfied are you with life these days?" In any case, the negative relationship shows that the more satisfied one is, the less likely one is to be fearful. This indeed does seem to be the case, especially in Table 6. However, optimism and inner causality are simply not informative, at least as they have been operationalized here.

It is important to note that the focus of the discourse above has been on the nature or direction of the associations and not on the strength of the relationships. Naturally, the larger the coefficient shown, the stronger the association. In fact, a very large coefficient can be substantively significant (and therefore worthy of further

investigation) even if it is not statistically significant. In all regression tables statistical significance is indicated as follows:

$p < .05 = *$

$p < .01 = **$

$p < .001 = ***$

In review, these significance levels mean that there is only a 5% or a 1% chance, or one chance in a thousand, that such a result could occur if there were no association between that variable and either fear in the neighbourhood or fear of property victimization.

This rather lengthy detailing of the meanings of the findings shown in Tables 5 and 6 is intended to also clarify the tables dealing with males and females separately. However, understanding how the individual variables act alone will not inform our analysis of the contribution of the models as units. Further discussion will be to that end.

Multiple Regression: Fear in the Neighbourhood - All

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.15*	-.07	-.04	-.02	-.07	-.08
D2	Age	.04	.04	.03	.04	.00	-.00
D1	Gender	.40***	.42***	.43***	.44***	.46***	.46***
D5	Education	-.12*	-.14*	-.07	-.11	-.11	-.03
D6	Employment	-.14*	-.14*	-.15*	-.14*	-.09	-.13
D7	Marital Status	.08	.06*	.11	.10	.08	.06
E5	Home Satisfaction		-.17	-.16	-.11	-.16*	-.16*
E1	House Type		.06	-.01	-.08	-.07	-.07
E6	Perceived Crime Rate		.14	.21	.18	.13	.19
E4	Incivility		.18**	.18**	.20**	.21	.13
E2	Tenure		.08	.06	.09	.09	.09
E7	Plans to Move			-.01	.00	.03	.02
R2	Drinking Patterns			.07	.07	.06	.05
S1	No. Adults in Household			-.04	-.01	-.06	-.05
S4a	Socialize With Neighbours			-.01	.00	-.03	-.00
R1	Nights Out			-.02	-.06	-.04	-.05
S2	Socialize With Relatives			.01	-.00	-.00	-.04
S5	Social Satisfaction			-.02	-.02	-.00	-.01
S3	Socialize With Friends			.01	.03	.05	.03
S4b	No. Neighbours Known			-.08	-.07	-.10	-.07
V3	Vicarious Victim				-.01	-.02	-.04
V4	Threatened by Gun				-.02	.02	-.01
V1	Personally Victimized				-.02	-.02	-.03
V5	Punched or Beaten				.05	.04	.07
P5	Satisfaction With Police					-.02	-.04
P3	Get Tough, Too					.12	.11*
P2	Get Tough Crime					.07	.15
P6	Optimism						.00
P4	Life Satisfaction						-.05
P1	Inner Causality						.00
Expl.Variance		.225	.294	.311	.313	.351	.353
Multiple R		.474	.542	.557	.560	.593	.594

- Table 5 -

Multiple Regression: Fear of Property Crime - All

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.04	.04	-.00	.02	.03	.02
D2	Age	-.12***	-.16*	-.11	-.08	-.09	-.13
D1	Gender	.01	.02	.02	.01	-.03	-.00
D5	Education	-.16**	-.15**	-.11*	-.15*	-.15	-.07
D6	Employment	-.17***	-.11**	-.15*	-.13*	-.12*	-.18**
D7	Marital Status	-.01	-.04	-.02	-.00	.03	-.01
E5	Home Satisfaction		-.12	-.04	.07	.06	.06
E1	House Type		-.01	-.02	-.08	-.06	-.06
E6	Perceived Crime Rate		.09	.12	.09	-.05	.10
E4	Incivility		.32***	.30***	.28***	.31***	.30***
E2	Tenure		.08	.06	.09	.08	.10
E7	Plans to Move			-.03	-.01	.05	.01
R2	Drinking Patterns			-.01	-.01	-.04	-.04
S1	No. Adults in Household			.07	.08	.14	.13*
S4a	Socialize With Neighbours			.18*	.18*	.11	.16
R1	Nights Out			.07	.05	.04	.02
S2	Socialize With Relatives			-.04	-.04	-.00	-.05
S5	Social Satisfaction			-.07	-.06	-.11	-.13
S3	Socialize With Friends			-.01	.01	.06	.05
S4b	No. Neighbours Known			.01	.03	-.00	-.02
V3	Vicarious Victim				.04	.02	.04
V4	Threatened With Gun				-.09	-.03	-.04
V1	Personally Victimized				.13*	.15**	.13**
V5	Punched or Beaten				-.08	-.08	-.09
P5	Satisfaction With Police					-.06	-.00
P3	Get Tough, Too					.09	.16*
P2	Get Tough Crime					-.04	.05
P6	Optimism						-.05
P4	Life Satisfaction						-.20*
P1	Inner Causality						.04
Explained Variance		.067	.149	.162	.189	.233	.266
Multiple R		.259	.386	.402	.435	.482	.516

- Table 6 -

When we examine the variables in the first step of the model as we have applied it to feelings of safety in the neighbourhood, we see that gender has by far the strongest effect. Income, employment status, and education are clustered well back from gender. When we add the variables from the environmental model, we find that gender maintains its relatively high influence but perceptions of neighbourhood as relatively problem free and satisfaction with ones home replace the economic demographic indicators in second place. In other words, feelings about one's neighbourhood are more important than income in explaining fear levels but it must be remembered that those with higher incomes can afford to choose neighbourhoods where they feel safe. Hence we see that, in this example, the effect of income is indeed indirect. However, though income drops significantly, education and employment status seem to maintain their original effect. Note that the amount of the total variance that has been explained by adding the environmental model to the structural model is increased by .069.

Adding the behavioral variables does little to change the predominant role of gender and the effects of perception of the environment, etc. appear to hold their influences as well. Nor does the addition of the behavioral models add a great deal to the explained

variance. Inclusion of the psychological variables does very little to change the established pattern. However, as we add models, gender appears to gain explanatory power. Similarly, the respondent's perception of the comparative crime rates in the neighbourhood (low, medium, high) and the incivility scale seem to gain influence. While adding variables is always certain to increase the total variance explained, it is interesting to note that only a very small increase occurs between the mixed information models: the bigger changes occur between those models and the models more specifically oriented to either objective or subjective information.

The patterns found for fear in the neighbourhood are not repeated for fear of property crime. Gender no longer has substantial nor lasting influence which suggests that womens' expression of greater fear is indeed crime specific. Education, employment and age once again maintain their effects at least until the psychological variables are added. Note the significant impact of the incivility index which is made up of perception of neighbourhood indicators. This is logical, given that the bulk of one's property is likely to be held in the neighbourhood. Again we see the same pattern of explained variance with little additional explanation occuring between the objective - subjective components, but more

sizeable gains between the mixed groups and the specifically objective or subjective models. The total explained variance for FearProp is somewhat lower than for FearNeigh. This may be a function of the index which has been used to operationalize this concept.

The following tables show the models with gender controlled. The differences in the patterns shown for males as compared to the general group are interesting, indeed. Similarly the tables showing the data for females only show significant differences both from males and from the general group.

For males, the demographic characteristics appear to have the greatest explanatory power and this effect holds generally right through to completion of the model. In fact, all variables except for education consistently score higher for males alone than for the group as a whole. It is particularly interesting to note that marital status is also statistically significant throughout the model. It not only maintains its impact but the mediating effects of the behavioral and psychological variables apparently strengthen it.

Multiple Regression: Fear in the Neighbourhood - Males

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.19*	-.11	-.05	-.01	-.07	-.08
D2	Age	.19	.14*	.13	.12	.06	.11
D5	Education	-.14	-.21	-.12	-.09	.01	-.02
D6	Employment	-.17**	-.23	-.24	-.25*	-.21	-.19
D7	Marital Status	.14*	.14*	.21**	.19*	.20*	.20*
E5	Home Satisfaction		-.17	-.18	-.22	-.25*	-.26*
E6	Percept.Crime Rate		.09	.10	.10	.08	.08
E1	House Type		.05	-.02	-.07	-.06	-.07
E4	Incivility		.19*	.18*	.19	.03	.02
E2	Tenure		.15	.06	.11	.20	.22
E7	Plans to Move			-.03	-.02	-.04	-.04
R2	Drinking Patterns			.15	.06	.16	.05
S1	No. Adults in Household			-.01	-.03	-.05	-.03
S3	Socialize With Friends			-.07	-.03	-.01	-.06
S4a	Socialize With Neighbours			-.03	-.04	-.03	-.08
S2	Socialize With Relatives			.01	-.02	-.05	-.06
S5	Social Satisfaction			-.03	-.08	-.11	-.10
S4b	No. Neighbours Known			-.14	-.10	-.09	-.08
R1	Nights Out			.09	-.02	-.02	.00
V3	Vicarious Victim				-.14	-.09	-.14
V4	Threatened With a Gun				.10	.05	.03
V1	Personal Victim				-.09	-.05	-.09
V5	Punched or Beaten				.12	.17	.16
P5	Satisfaction With Police					.07	.06
P3	Get Tough, Too					.16	.11
P2	Get Tough Crime					.15	.20
P6	Optimism						-.08
P4	Life Satisfaction						.02
P1	Inner Causality						.03
	Explained Variance	.134	.201	.219	.234	.260	.268
	Multiple R	.366	.448	.468	.484	.510	.518

- Table 7 -

Multiple Regression: Fear of Property Crime - Males

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.04	.07	-.03	-.04	-.01	-.00
D2	Age	-.15**	-.19*	-.09	-.07	-.10	-.17
D5	Education	-.09	-.09	-.07	-.06	.01	.02
D6	Employment	-.21**	-.14*	-.16	-.15	-.20	-.21*
D7	Marital Status	.03	.03	.03	.08	.07	.10
E5	Home Satisfaction		-.15	-.04	.05	.01	-.00
E6	Percept.Crime Rate		.17	.15	.18	.16	.12
E1	House Type		-.03	-.02	-.10	-.06	-.10*
E4	Incivility		.20*	.25**	.21**	.28**	.26**
E2	Tenure		.09	.09	.08	.17	.24
E7	Plans to Move			-.09	-.08	-.07	-.08
R2	Drinking Patterns			-.09	-.12	-.07	-.10
S1	No. Adults in Household			.13	.13	.21*	.24*
S3	Socialize With Friends			-.10	-.07	-.07	-.08
S4a	Socialize With Neighbours			.16	.13	.12	.03
S2	Socialize With Relatives			.10	.08	.05	.04
S5	Social Satisfaction			-.03	-.03	-.19	-.23
S4b	No. Neighbours Known			.03	.04	.00	.01
R1	Nights Out			.03	.01	.06	.03
V3	Vicarious Victim				-.00	-.02	-.02
V4	Threatened With a Gun				-.10	-.07	-.05
V1	Personally Victimized				.11	.13	.11
V5	Punched or Beaten				-.01	.02	.01
P5	Satisfaction With Police					-.05	.01
P3	Get Tough, Too					.03	.19
P2	Get Tough Crime					-.08	-.05
P6	Optimism						-.04
P4	Life Satisfaction						-.15
P1	Inner Causality						-.07
Explained Variance		.072	.137	.175	.190	.256	.330
Multiple R		.268	.370	.418	.436	.506	.574

- Table 8 -

This is particularly interesting in the light of males generally low expression of fear and it may be an indicator of the degree of worry that married men have about the safety of their families. Similarly, the negative and sometimes significant scores for employment suggest the very real importance of having gainful employment to a male's well-being. Home satisfaction and perception of neighbourhood are again fairly high, similar to the findings for the entire group.

Addition of the environmental variables adds about 7 percent to the total explained variance and the behavioral and victimization variables add a further 2 percent each. While the crime attitude variables add nearly 4 percent, the miscellaneous variables such as life satisfaction, etc. do not add a great deal. However, the overall pattern of the model is consistent for males and for the group as a whole.

Consistent with Table 6, Table 8 shows generally weaker effects than thos illustrated for fear in the neighbourhood in Tables 5 and 7. Once again, males alone score slightly higher throughout the model than the entire group does but the FearProp scores are lower than those shown for FearNeigh. The most striking difference is the change in the effect of marital status from Table 7 to table 9. As might be expected in a model addressing fear

of property victimization, the perception of neighbourhood crime rates as compared to other areas and the incivility measures both have a relatively strong effect. The effects of the social network also appear to be relatively strong for males with the patterns reflecting those reported earlier.

The total explained variance for males and fear of property crime has a somewhat different pattern than that shown above: environmental, behavioral, and victimization models add only 6.5 percent, 4 percent, and 1.5 percent respectively but the psychological variables add 14 percent!

The following tables, Tables 9 and 10, illustrate the effects of the models for women only. Note in Table 9 that the demographic variables do not show the strength that they have shown for both males and for the entire group. Further, for the first time we see that to be married means to be less fearful, as predicted by the social support model. However, home satisfaction, comparative neighbourhood crime rates, and the incivility measure all maintain a similar pattern to the other tables. The incivility index is particularly strong for females.

Multiple Regression: Fear in the Neighbourhood - Females

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.10	-.01	.01	-.09	.03	.04
D2	Age	-.06	-.05	-.09	-.04	-.03	-.05
D6	Employment	-.14	-.09	-.07	-.09	-.11	-.11
D5	Education	-.10	-.11	-.07	-.05	-.02	-.00
D7	Marital Status	.01	-.01	-.05	-.04	-.13	-.12
E5	Home Satisfaction		-.26	-.09	-.06	-.13	-.12
E1	House Type		.03	-.02	-.01	-.15	-.13
E4	Incivility		.26*	.25*	.24*	.19	.20
E6	Percept.Crime Rate		.14	.30	.31	.29*	.30
E2	Tenure		.08	.11	.10	.09	.11
E7	Plans to Move			-.02	-.05	.05	.04
R2	Drinking Patterns			.04	.01	-.02	-.02
S5	Social Satisfaction			-.05	.00	.06	.05
S4a	Socialize With Neighbours			.02	.03	.03	.03
R1	Nights Out			-.07	-.07	-.06	-.07
S1	No. Adults in Household			.03	.04	-.02	-.02
S3	Socialize With Friends			.05	.06	.10	.09
S2	Socialize With Relatives			-.02	-.01	-.00	.01
S4b	No. Neighbours Known			-.05	-.04	-.04	-.06
V3	Vicarious Victim				.09	.06	.07
V4	Threatened With a Gun				-.13	-.11	-.10
V1	Personally Victimized				-.03	.02	.02
V5	Punched or Beaten				-.03	-.02	-.02
P5	Satisfaction With Police					-.11	-.13
P3	Get Tough, Too					.19	.19
P2	Get Tough Crime					.07	.08
P6	Optimism						.05
P4	Life Satisfaction						-.09
P1	Inner Causality						-.03
	Explained Variance	.043	.153	.169	.189	.241	.251
	Multiple R	.207	.391	.411	.435	.491	.501

- Table 9 -

Multiple Regression: Fear of Property Crime - Females

		(1)	(2)	(3)	(4)	(5)	(6)
D4	Income	-.04	-.10	.06	-.03	.09	.08
D2	Age	-.08*	-.13	-.12	-.14	-.10	-.09
D6	Employment	-.16	-.10	-.11	-.12	-.10	-.12
D5	Education	-.23**	-.23***	-.18	-.21	-.11	-.10
D7	Marital Status	-.04	-.05	-.11	-.11	-.13	-.14
E5	Home Satisfaction		-.08	.06	.10	.06	.10
E1	House Type		-.02	.01	.04	-.01	-.06
E4	Incivility		.38***	.32***	.35***	.34***	.31***
E6	Percept.Crime Rate		-.11	.08	.09	.09*	.09*
E2	Tenure		.08	.07	.08	.08	.06
E7	Plans to Move			.01	-.00	.03	.04
R2	Drinking Patterns			.07	.04	-.04	-.04
S5	Social Satisfaction			-.15	-.18	-.10	-.10
S4a	Socialize With Neighbours			.21*	.27*	.22*	.22*
R1	Nights Out			.10	.07	.11	.09
S1	No. Adults in Household			.02	.02	.02	.03
S3	Socialize With Friends			-.02	.03	.05	.06
S2	Socialize With Relatives			-.27**	-.12*	-.23	-.23
S4b	No. Neighbours Known			-.00	-.02	-.01	-.02
V3	Vicarious Victim				.09	.09	.09
V4	Threatened With a Gun				-.06	-.07	-.08
V1	Personally Victimized				.11	.17	.18
V5	Punched or Beaten				-.17	-.18	-.18
P5	Satisfaction With Police					-.07	-.04
P3	Get Tough, Too					.20	.21
P2	Get Tough Crime					.02	-.00
P6	Optimism						-.06
P4	Life Satisfaction						-.17
P1	Inner Causality						.10
Explained Variance		.082	.209	.265	.310	.340	.356
Multiple R		.286	.457	.515	.556	.584	.597

- Table 10 -

The routine and social support variables are also similar for women as for males and for the group but note the differences between males and females shown for drinking patterns and for the effects of numbers of neighbours known. The experience of victimization - either personal or vicarious - shows even smaller effects for women than for men. This may be because women are more likely to seek counselling after a troublesome experience and therefore they may be more likely to recover from the experience. The pattern for the total explained variance is similar to that shown for the group as a whole with the major change occuring with the addition of the environmental model.

In Table 10, the demographic variables appear to be stronger for females and property crime than they were for males and for the group as a whole. This is in contrast to the findings for fear in the neighbourhood. The incivility measure maintains a considerable effect throughout the model. In fact for females and fear of property crime, this indicator is the most consistently significant (both substantively and statistically) of all. Socializing with neighbours shows a significant effect and the contrast in this variable between Table 9 and Table 10 is rather puzzling. However socializing with relatives also shows significantly for females and these seeming

anomalies may suggest support for the notion that the social network may be particularly important to women. The same sudden increase in total explained variance that occurred above when the environmental variables are added to the model is shown here as well with the rest of the pattern being similar to the others shown above.

B. Summary of the Findings:

The findings as they are presented here elaborate the point that there are other variables besides gender that appear to have a significant impact on the fear levels that urban residents feel. The most consistently significant of these is the incivility measure. The implications of this finding are optimistic for it suggests that one way we may be able to allay fear is to clean up the physical environment by removing decaying buildings and the like. (The clean-up project might, in addition, provide employment, increase property values, increase tourist appeal, and so on.) One particular point to be more thoroughly examined is the power of the incivility measure. Remember that it combines perceptions of the physical environment (run-down buildings and the like) with perceptions of the social environment (alcohol or drug abuse, for instance) and it might be useful to

separate these and to develop new, more focused indices to test the effect of these perceptions separately.

One contrast between these findings as compared to other work is that age is not necessarily as powerful an indicator as has been suggested by other researchers. It is also interesting to note that age tends to be more effective for males than for females for FearNeigh but the reverse trend appears in FearProp. Clearly this variable requires further work.

Comparing and contrasting the models is still very difficult, given the truncation that occurs when secondary data are used. It appears that the behavioral and experiential models contribute the least explanatory value to the comprehensive approach. This may, however, be a reflection of the limited operationalization that was possible for these perspectives and they should not be tossed aside without a more fairly operationalized test and comparison. On the other hand, however, the environmental model seems to be one of the strongest models and it, too, was lacking a full examination given that physical environment data was not available. Clearly the model is worth further work. Similarly, the psychological models contribute a significant portion of the total explained variance and they also warrant further testing. Given the findings reported here, it seems a

logical followup is further testing and exploration of the potential of the environmental model. This will link, via the environmental perception measures to the psychological models for a second area deserving further effort.

While it must be acknowledged that the substantive value of some coefficients may be weak, the relationships described are generally in the 'right' direction, the direction as predicted by the original model. Hence this research finds at least some support for each of the models herein. This suggests that further research specifically oriented towards a complete testing of all the models might be fruitful. Only by comparative testing can the most effective indicators be ascertained.

V. SUMMARY AND CONCLUSIONS:

A. Summary of Material

B. Implications and Applications

C. Recommendations for Future Research

D. Conclusions

A. Summary of Material:

As stated at the outset: the goal of this thesis has been twofold. One objective has been to provide an understanding of the influence of the basic theoretical perspective on the final research. A discussion of the scientific process as the researcher moves from vague concepts and propositional relationships to more specific models, typologies and/or taxonomies, and to particular testable hypotheses supplies the foundation for further exploration of some research models. This is done in the context of the other objective: that being the provision of a comprehensive report on the current findings of an important social problem --- the fear of crime as knowledge has been acquired through the use of the various perspectives. Further, we were able to form a taxonomy of the components or elements to be included in any holistic study of fear of crime and from that we were able to develop a comprehensive model for further research.

This examination of study perspectives was framed around the two basic types of information that are requirwed in any comprehensive social research: objective and subjective information. With researchers tending to emphasize one or the other of these information types, various study models evolved which require a variety of

data including demographic, environmental, behavioral, experiential, and perceptual information. As each model was discussed in turn, we gained insight into the potential contributions of that particular perspective and the truncations or gaps in information that are based in the perspective itself.

General support was found for all the models examined and the findings for this sample were very similar to the results reported from other research. However this was the first time that the models have been directly compared and contrasted and greater understanding of the limitations and potential contributions of the models has been the result.

B. Implications and Applications:

Knowledge is a basic requirement of all intervention programs because, as noted earlier, social interventions involve a causal argument and our ability to design such programs is limited by our understanding of the problem. Fear of crime affects a significant portion of the population for in 1981 66% of Canadians lived in cities and towns over 10,000. A population this large is expensive to service so it is important that effort, time, and money is not wasted.

It is also important to note that various coping strategies are already employed by City of Edmonton residents. Though these strategies are not addressed in the 1984 Edmonton Area Study used herein, they have been examined in other years. Some of these are active stategies, a form of "street savvy" as Riger, et.al.(1978,1981,1982) terms it. These active strategies include such things as wearing shoes which would be easy to run in, choosing seats on the bus and at the theater with a view of who is sitting nearby. Other examples would include taking self-defense courses, installing special locks, window grills, alarms, etc., and so on. Other coping strategies are more passive and include the self-isolation that results in lost opportunities for those who use it and for those who would benefit from their talents, their input to the economy and so on. Kennedy & Silverman (1984), using data collected in 1983 in Edmonton, Alberta found that fear is the strongest predictor of self-isolation, particularly for women: over 50% restrict going out to daytime at least sometimes, and over 30% avoid visiting at least sometimes, and over 25% avoid shopping and errands at least sometimes. One can only speculate on the price that this exacts from Edmonton women, Edmonton business people, and those playing other important roles in the fabric of the City. The same

authors also note that those who choose isolation as a coping strategy are less likely to say that they would intervene when viewing suspicious activities. Once again, we can only speculate the costs of this diminished altruism.

It has been shown that men and women do display different perceptions of how serious some crimes are and of the relative seriousness of crimes (Lampe,1982; Warr,1984). Perhaps the most serious implication of Lampe's report is his unsettling point: "Since a crime must be regarded as a personal threat before it affects an individual's attitudes and behaviour, rape will probably continue to be dealt with in a comparatively lenient and ineffective manner by our male-dominated legal system." It seems likely that this point might be extrapolated to all crimes. It is possible that too many city residents, particularly those who are affluent and able to live in safer areas of the city, are complacent because they do not view any crime as personally threatening. City administrators, members of city government, and officers within the legal system are likely to be amongst this affluent group and therefore somewhat removed from the "front lines" so to speak. It is important, then, that they be particularly careful to evaluate anti-crime programs without bias and that they create a climate

wherein crimes and victims are not given apparent short-shrift. Administrators must insist that the local police force give all possible effort to bringing all criminals to trial; and they must award adequate funding to crisis centers so that victims and their families have counselling and other resources to draw on.

Setting policy, choosing effective anti-crime programs, and so on will not be an easy task. As Lampe also pointed out, while both sexes agree that the responsibility for crime rests primarily with individual, they place secondary responsibility differently with men assigning this to the family, women assigning it to society at large. Policy makers of either sex must carefully weigh their personal bias whenever they are evaluating data and/or making proposals.

One potential program deserves further attention. The apparent success of the Evanston, Illinois program (Kaminsky, et.al., 1983; Lavrakas, et.al., 1984) in creating an informed and relatively secure climate should be translated to the Edmonton context. This program had a number of different aspects including increased interaction of police officers with the law-abiding public. Basically, for the police force, the largest change is a shift in their relationship with crime from one of reaction to a proactive approach. Little was

needed in additional manpower so funding requirements should be kept at a minimum. The newsletter component of the Evanston experiment could reasonably be assumed by the two local newspapers as it fits within their mandate to provide both news and information. City administrators and the police department would be required to work closely as they decide how best to translate this program to fill needs specific to Edmonton but the effort required would be well spent.

C. Recommendations for Future Research:

It must be recognized that research done to date has made an important contribution to the study of the fear of crime. However it is clear that further work is required. Though many of the variables commonly used do show either substantively significant or statistically significant relationships with fear (particularly as it is measured by the standard FearNeigh indicator) the findings overall are not so powerful that they can offer clear guidance to any policy maker.

The reasons for this lack in firm direction may lie in the operationalization of fear as a dependent variable. Statistically speaking, the neighbourhood indicator works better than any other used thus far but on

a theoretical and intuitive basis it appears to lack some important components. Researchers would do well to remember that fear is a multi-dimensional construct: it has emotional, cognitive, and behavioral expressions and, as suggested above, unless all aspects of fear are measured, the research may be incomplete. Hence, it seems clear that more information on fear is required. It may be that the nature of fear changes, depending upon the context in which it occurs, or we may find that fear, as it is associated with crime, may indeed have a better measure than those used to date.

The substantive significance of gender is clear. But it would be interesting to know how much the correlations might have to change for them to become statistically significant as well. In other words, maybe one of the reasons it is so difficult to see how and why women's fear differs from that expressed by men is because researchers have not yet found a fear indicator which strikes a statistically significant association with gender. Part of the problem seems to be that womens' fear is simultaneously more generalized yet crime-specific and it will not be easy to sort out this apparent contradiction. This relates, of course, to the need for more research on fear -- but that may not tap the gender differences adequately. Besides the differing nature of

the crimes to which women are particularly vulnerable, issues of general societal attitudes to women are raised, of the consequent differences in socialization, and of the effect that holding or having knowledge of these attitudes has on either gender must be somehow resolved. The door comes open to the study of family violence, to research on the effects of media images, pornography, and the like, and to attitudes that are so deeply imbedded in the political and religious fabric of most cultures that they might be virtually impossible to operationalize.

However, there are more specific and more manageable avenues to follow. The finding that perception of environment is a generally strong indicator is promising. It may mean that improved physical environments may indeed mediate fear levels. However, further research into the psychological response to physical surroundings is required for given the nature of the standard fear indicator, it should not be suprising that environmental perceptions should be strongly associated. Therefore, using the incivility measure as a foundation to elaborate further, researchers must develop two components: one which measures response to physical attributes such as run-down buildings and the like, and another which taps response to the social environment like people loitering, drug abuse, and so on. These new

indices must then be tested beyond the neighbourhood context. This approach should give more guidance as to the first target of intervention programs.

Further, it might be productive to rerun the data shown herein, using other controls. While the findings shown for gender show that it is indeed generally the strongest indicator, new insights might be available if income, education, and marital status were used as well.

We have repeatedly noted that the information collected is demographic, environmental, behavioral, experiential, and perceptual in nature. Clearly the orientation of work to date is generally towards the examination of the individual. The work noted by Bowker (1979) wherein he suggests that there may be differences between cities that might explain victimization rates is a promising avenue of exploration. Perhaps if fear of crime was studied on the basis of larger units such as neighbourhoods (or cities) some more concrete direction can be found. For instance, if victimization really does occur more often in run-down neighbourhoods what is it that is so different there from areas where victimization rates are low. Probably decaying buildings are not fear provoking in themselves but they represent a "don't care" attitude that perhaps "gives permission" for humans to behave aggressively towards each other. In other words,

by looking at both physical and social differences in high-crime and low-crime areas, we might identify some of the larger problems underlying the incidence of crime. We are suggesting, then, that the application of some of the methods and perspectives borrowed from 'macro-sociology' might provide useful information.

Finally, it must be recognized that not all of the models have had a fair trial. Some, like the Routine Activities Model, had few pertinent questions in the 1984 Study. Others, like the Environmental Model, were missing important components. These problems are inherent in doing secondary research and it should be fruitful to redo this work on data which has been collected specifically to test the models equitably.

D. Conclusions:

During the initial formulation of this thesis interest centered on identifying environmental factors that affected fear levels, particularly as they might affect women in the city. Women, after all, are most likely to have to live in cheaper, less easily defended housing and they may be forced to use public transport. These factors become even more problematic if residence, work place, and day care facilities are located long

distances apart because of land use planning policies, developer priorities, and so on. Whatever her living and working circumstances, we felt that a woman living in the city may very often feel vulnerable to personal attack whenever she must leave the relative safety of her home.

Though it became clear very quickly that focusing only on environmental factors would seriously limit potential findings, the grounded theory seems to have been supported: urban women are indeed fearful and one strong relationship within that study is that perceptions of the environment have a significant effect on the fear levels of all urban residents. Our findings substantiate the idea that research which is focused on environmental considerations is not only justified but that it should be the next step in the study of urban fear. However, we have now identified many other issues and problems that must be included in the project for we have also shown that unless all the models are utilized, the work is incomplete.

The basic implication here is that the study of the fear of crime requires a multidimensional approach for such a many faceted problem has no single or simple solution. Each perspective makes a contribution, but no single model thoroughly informs the theoretical issues surrounding fear. Viewing the problem in broader terms

and adopting the best of each of the approaches should result in a more comprehensive approach to the research so that alternative solutions can be more efficiently evaluated and compared.

Whatever the contributions and/or limitations of research to date, it cannot be denied that the fear of crime is a significant problem. It permeates the lives of both men and women for we are all victims in some sense. To repeat Siegel's words: "For every act of violence, there is a victim or victims. Many criminals are caught, but every victim is always punished" (p.1268). It is time to change the rules of the game.

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